

# TA-FE710R/FE910R

## SERVICE MANUAL

*AEP Model*



Photo : TA-FE910R

The TA-FE710R and TA-FE910R are respectively the TA-FE700R and TA-FE900R models whose panels have been changed. This service manual describes only the exploded views, printed wiring boards, schematic diagram and electrical parts list. For the other information, refer to the service manual for TA-FE700R/FE900R (9-960-684-□□) previously issued.

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INTEGRATED STEREO AMPLIFIER



**SONY**®

## SECTION 1

### EXPLODED VIEWS

**NOTE:**

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked “\*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- -XX and -X mean standardized parts, so they may have some difference from the original one.

- Color Indication of Appearance Parts

**Example :**

KNOB, BALANCE (WHITE) ... (RED)

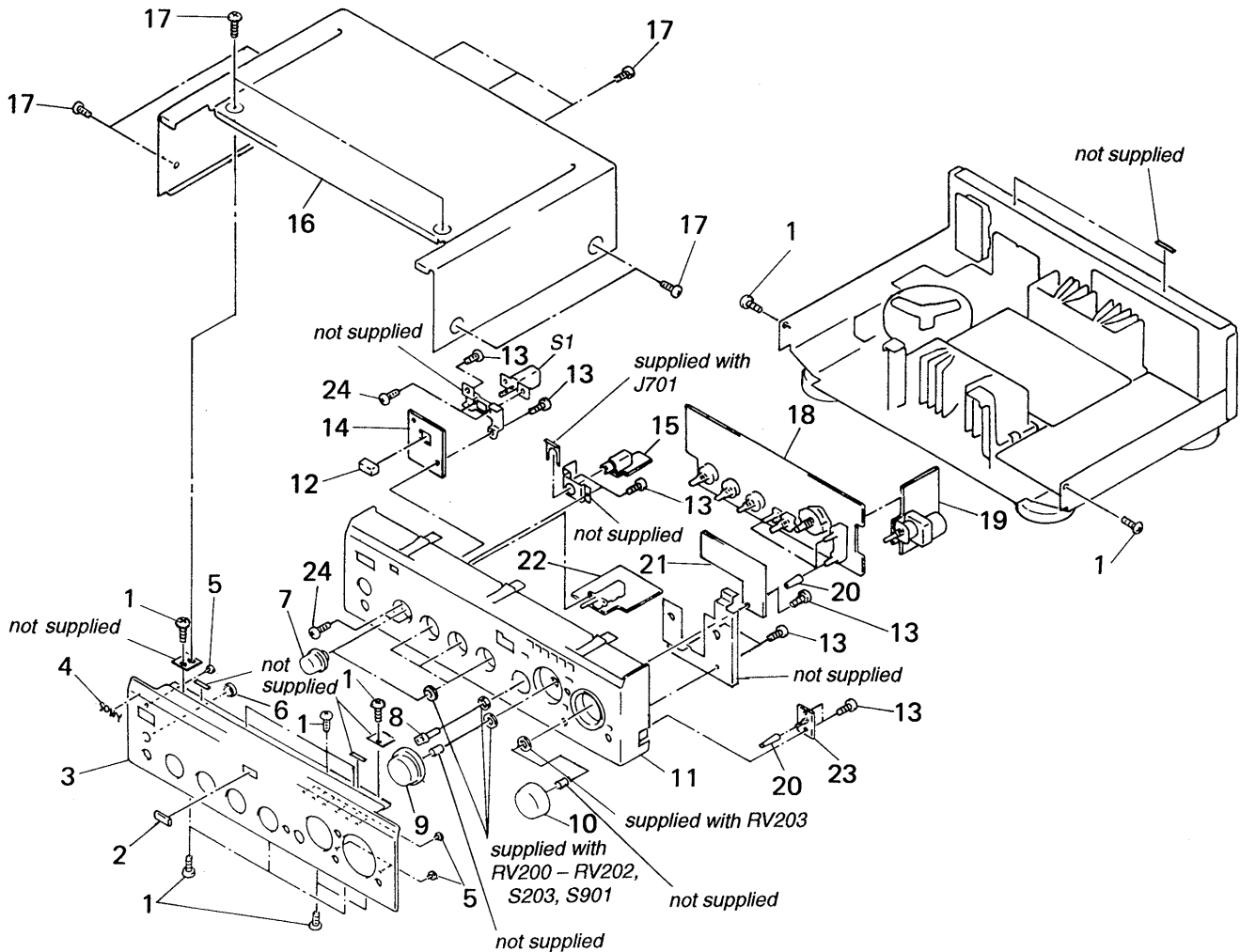
↑                      ↑

Parts Color   Cabinet's Color

- Accessories and packing materials are given in the last of this parts list.

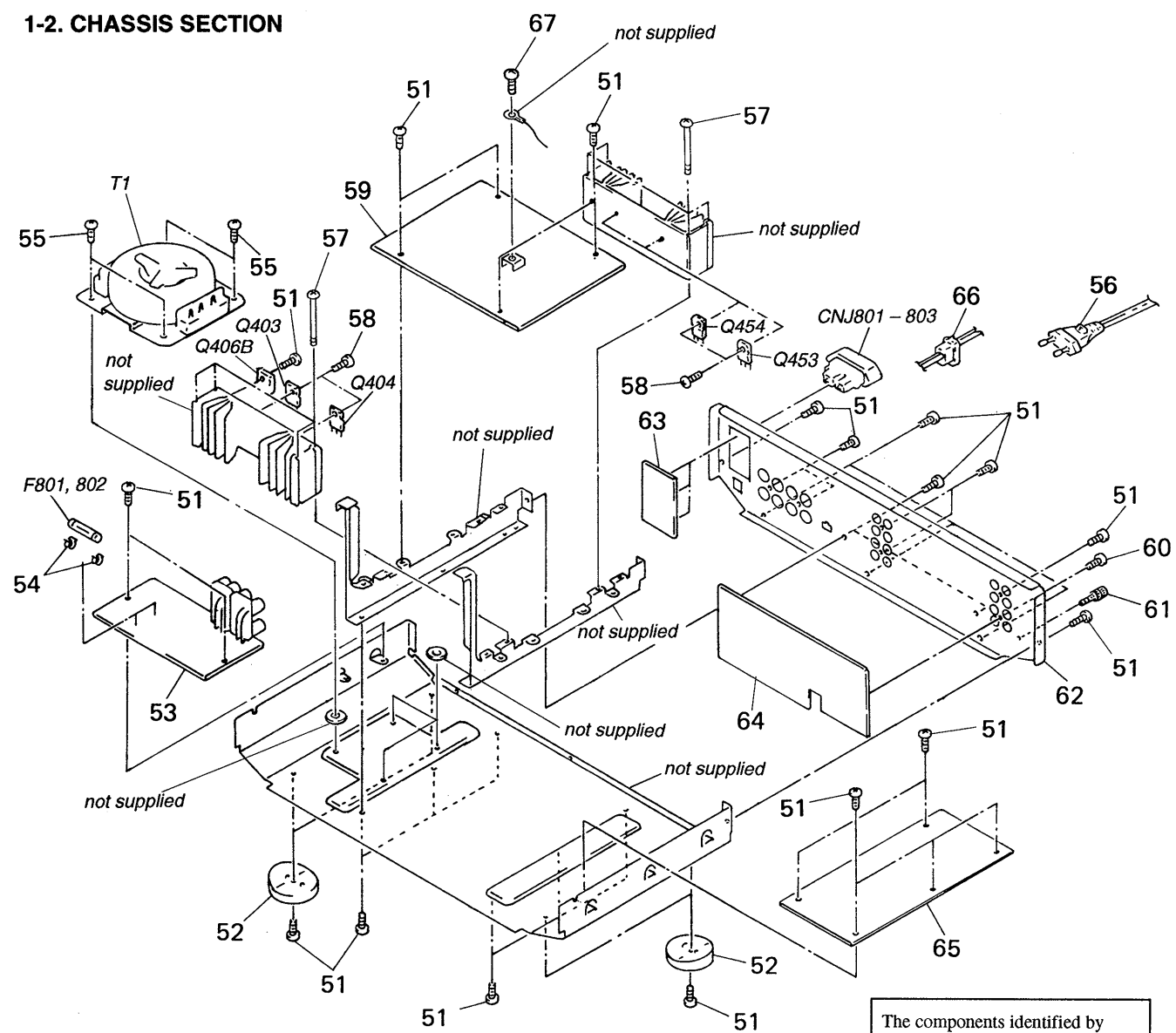
The components identified by mark  $\triangle$  or dotted line with mark.  $\triangle$  are critical for safety. Replace only with part number specified.

## 1-1. FRONT PANEL SECTION



<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
1	4-967-961-01	SCREW (3X8)		* 14	1-660-561-11	PRO IND BOARD	
2	4-965-651-01	EMBLEM (MOS)		* 15	1-662-375-11	HP BOARD	
3	4-980-766-32	PANEL, FRONT (FE910R)		* 16	4-989-460-11	CASE (FE710R)	
3	4-980-766-42	PANEL, FRONT (FE710R)		16	X-4948-403-1	CASE ASSY (FE910R)	
4	4-979-587-01	EMBLEM (NO.5), SONY		17	3-704-366-01	SCREW (CASE) (M3X8)	
5	4-980-775-01	LENS, LED		* 18	A-4389-812-A	PANEL BOARD, COMPLETE	
6	4-980-776-01	WINDOW, REMOTE CONTROL		* 19	1-660-559-11	VOL BOARD	
7	4-980-204-01	KNOB (DIA. 24)		20	4-980-773-01	BUTTON (DIA. 6)	
8	4-980-774-01	KNOB (F11)		* 21	1-660-556-11	LED BOARD	
9	4-980-771-01	KNOB (DIA. 47)		* 22	1-660-564-11	SP SW BOARD	
10	X-4946-920-1	KNOB (VOL) ASSY		* 23	1-660-560-11	EON BOARD	
11	X-4946-916-1	PANEL ASSY, BASE		24	7-685-872-09	SCREW +BVTT 3X8 (S)	
12	4-980-199-01	BUTTON (POWER)		△S1	1-554-920-11	SWITCH, PUSH (AC POWER) (1 KEY) (POWER)	
13	4-951-620-01	SCREW (2.6X8). +BVTP					

1-2. CHASSIS SECTION



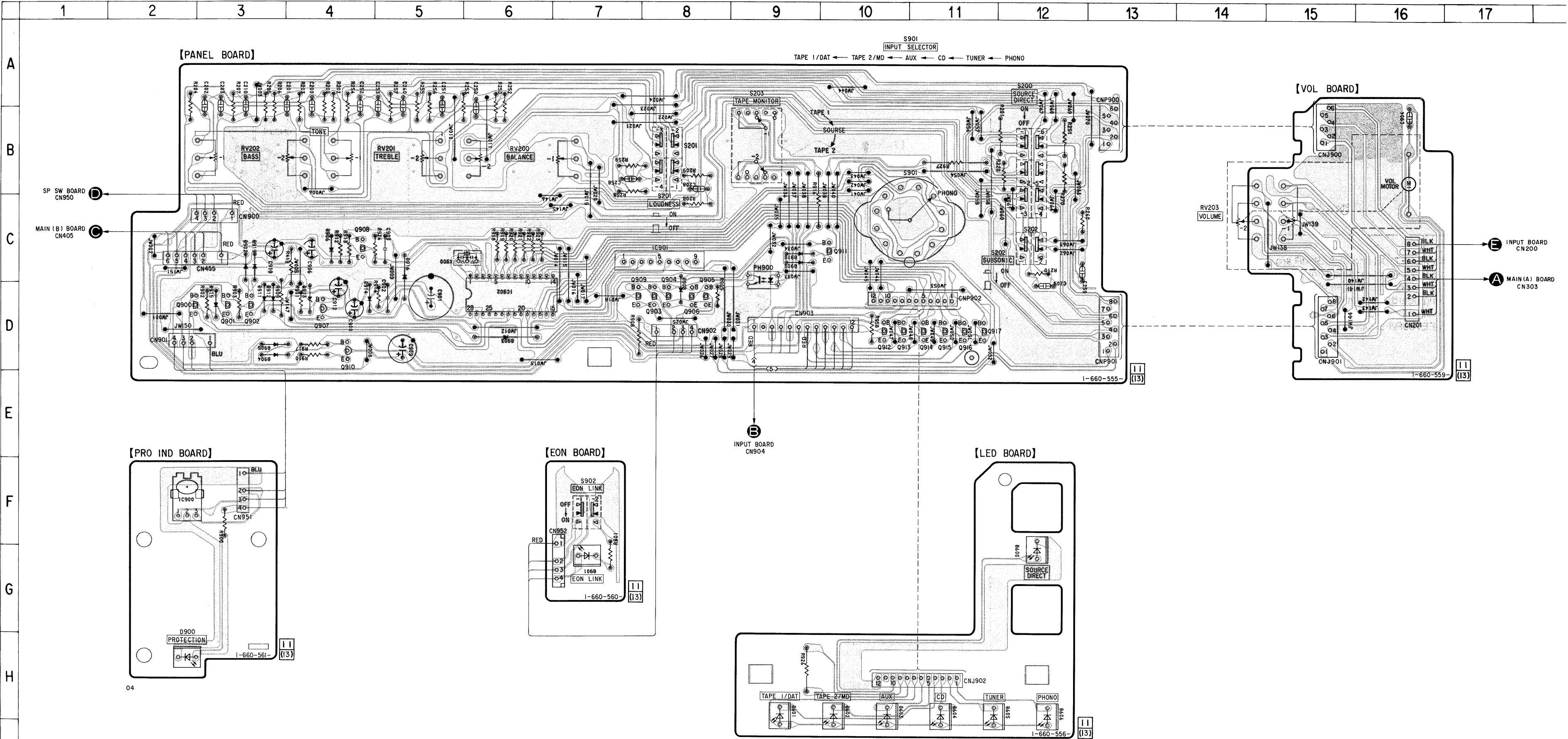
The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	4-967-961-01	SCREW (3X8)		* 65	A-4398-039-A	MAIN (A) BOARD, COMPLETE (FE910R)	
52	X-4947-025-1	FOOT ASSY		* 65	A-4398-043-A	MAIN (A) BOARD, COMPLETE (FE710R)	
* 53	1-665-580-11	SP TM BOARD		* 66	3-703-244-00	BUSHING (2104), CORD	
54	1-533-233-11	HOLDER, FUSE		67	7-685-872-09	SCREW +BVTT 3X8 (S)	
55	4-967-960-01	SCREW (4X8)		△ CNJ801	1-526-794-11	OUTLET, AC (AC OUTLET)	
△ 56	1-777-185-11	CORD, POWER		△ CNJ802	1-526-794-11	OUTLET, AC (AC OUTLET)	
57	4-981-016-21	SCREW (H) (FE710R)		△ CNJ803	1-526-794-11	OUTLET, AC (AC OUTLET)	
57	4-981-016-31	SCREW (H) (FE910R)		△ F801	1-532-464-51	FUSE, TIME LAG (T2.5AL/250V) (FE710R)	
58	3-905-609-11	SCREW (TRANSISTOR)		△ F801	1-532-465-51	FUSE, TIME LAG (T3.15AL/250V) (FE910R)	
* 59	A-4398-040-A	MAIN (B) BOARD, COMPLETE (FE910R)		△ F802	1-532-464-51	FUSE, TIME LAG (T2.5AL/250V)	
* 59	A-4398-044-A	MAIN (B) BOARD, COMPLETE (FE710R)		Q403	8-729-232-45	TRANSISTOR 2SK1529-Y	
60	3-704-515-41	SCREW (BV/RING)		Q404	8-729-232-46	TRANSISTOR 2SJ200-Y	
61	4-947-010-01	SCREW, FEEDER FIXED		Q406B	8-729-209-15	TRANSISTOR 2SD2012	
* 62	4-982-977-13	PANEL, BACK (FE910R)		Q453	8-729-232-45	TRANSISTOR 2SK1529-Y	
* 62	4-982-977-23	PANEL, BACK (FE710R)		Q454	8-729-232-46	TRANSISTOR 2SJ200-Y	
* 63	1-665-582-11	OUTLET BOARD		△ T1	1-431-275-11	TRANSFORMER, POWER (FE910R)	
* 64	1-660-557-11	INPUT BOARD		△ T1	1-431-276-11	TRANSFORMER, POWER (FE710R)	

SECTION 2  
DIAGRAMS

2-1. PRINTED WIRING BOARDS — PANEL SECTION —

• Semiconductor Location	
Ref. No.	Location
D600	G-12
D601	H-9
D602	H-10
D603	H-10
D604	H-11
D605	H-11
D606	H-12
D900	H-2
D901	G-7
D902	C-3
D903	D-6
D904	D-3
D905	D-3
D906	C-4
D908	D-8
D909	C-9
D910	C-9
D911	D-3
D912	D-3
D913	D-4
D914	D-4
D915	D-3
D916	C-5
D919	C-3
IC900	F-2
IC901	C-8
IC902	D-6
PH900	C-9
Q900	D-2
Q901	D-3
Q902	D-3
Q903	D-8
Q904	D-8
Q905	D-8
Q906	D-8
Q907	D-4
Q908	C-4
Q909	D-7
Q910	D-4
Q911	C-10
Q912	D-10
Q913	D-10
Q914	D-11
Q915	D-11
Q916	D-11
Q917	D-11



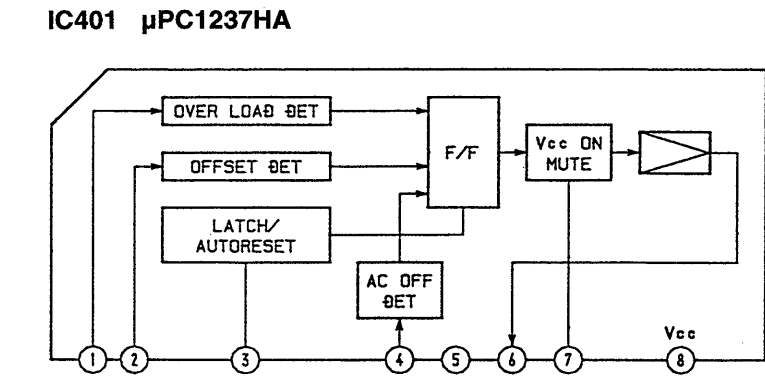
The diagram illustrates a motor control system with the following components and connections:

- Inputs:**
  - PIN 1: NC
  - PIN 2: INPUT 1
  - PIN 3: INPUT 2
  - PIN 4: NC
  - PIN 5: GND
  - PIN 6: Vcc
- Control Logic:**
  - Two **SWITCH** blocks are connected to INPUT 1 and INPUT 2.
  - Two **MOTOR DRIVE** blocks are connected to the switches in a cross-configuration.
  - A **REG** (regulator) block is connected to Vcc (PIN 6) and GND (PIN 5).
- Outputs:**
  - PIN 7: OUTPUT 2
  - PIN 8: OUTPUT
  - PIN 9: NC

- 9 -

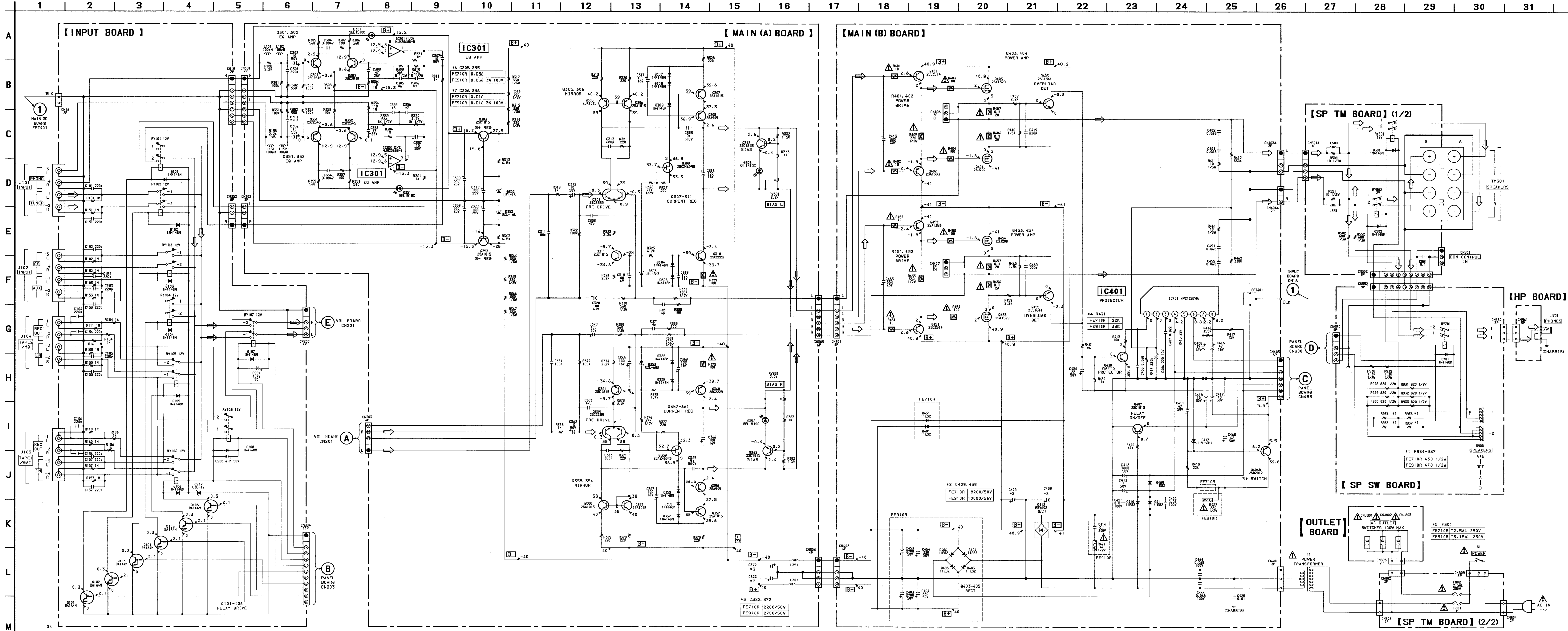


• IC Block Diagram



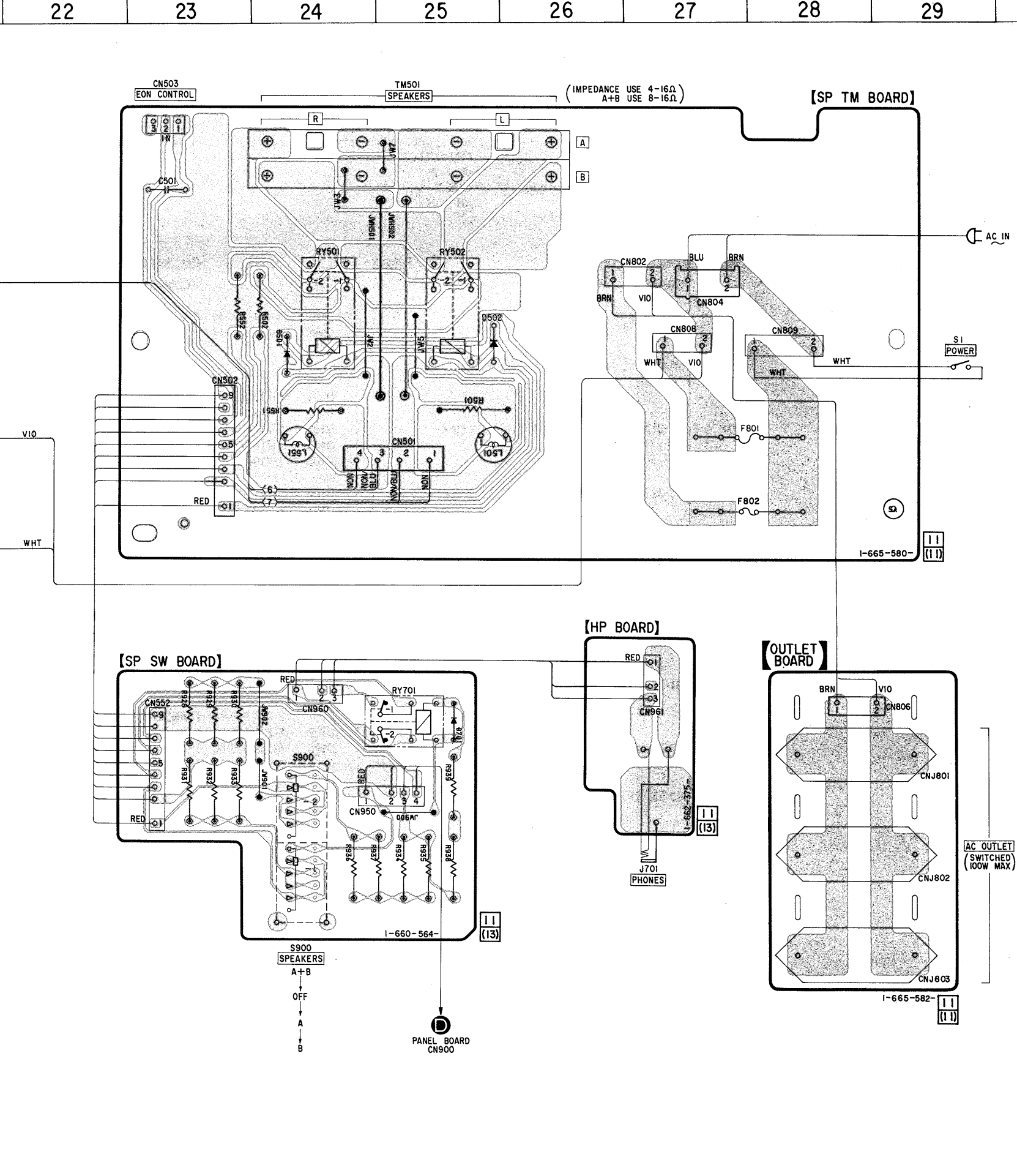
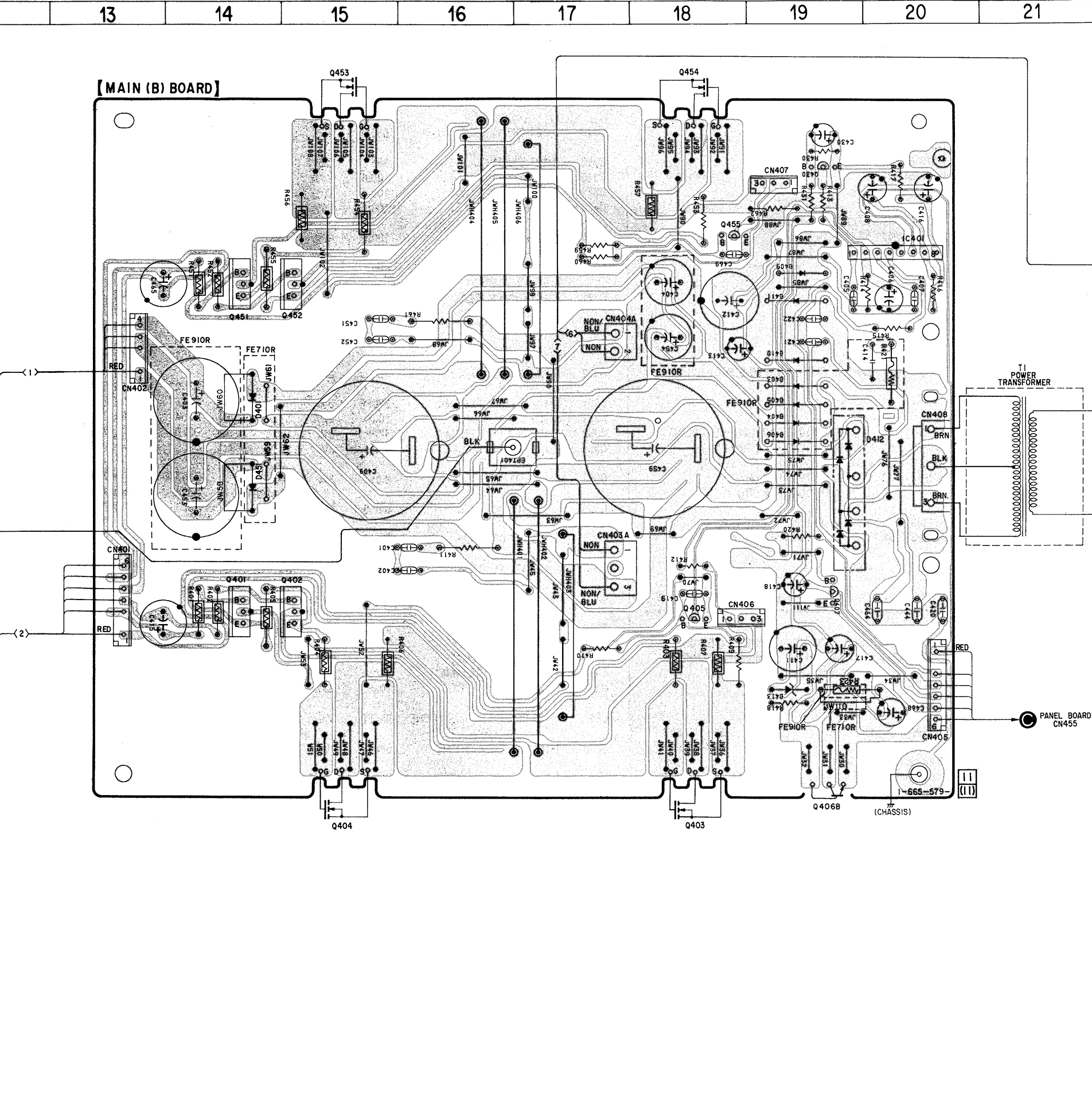
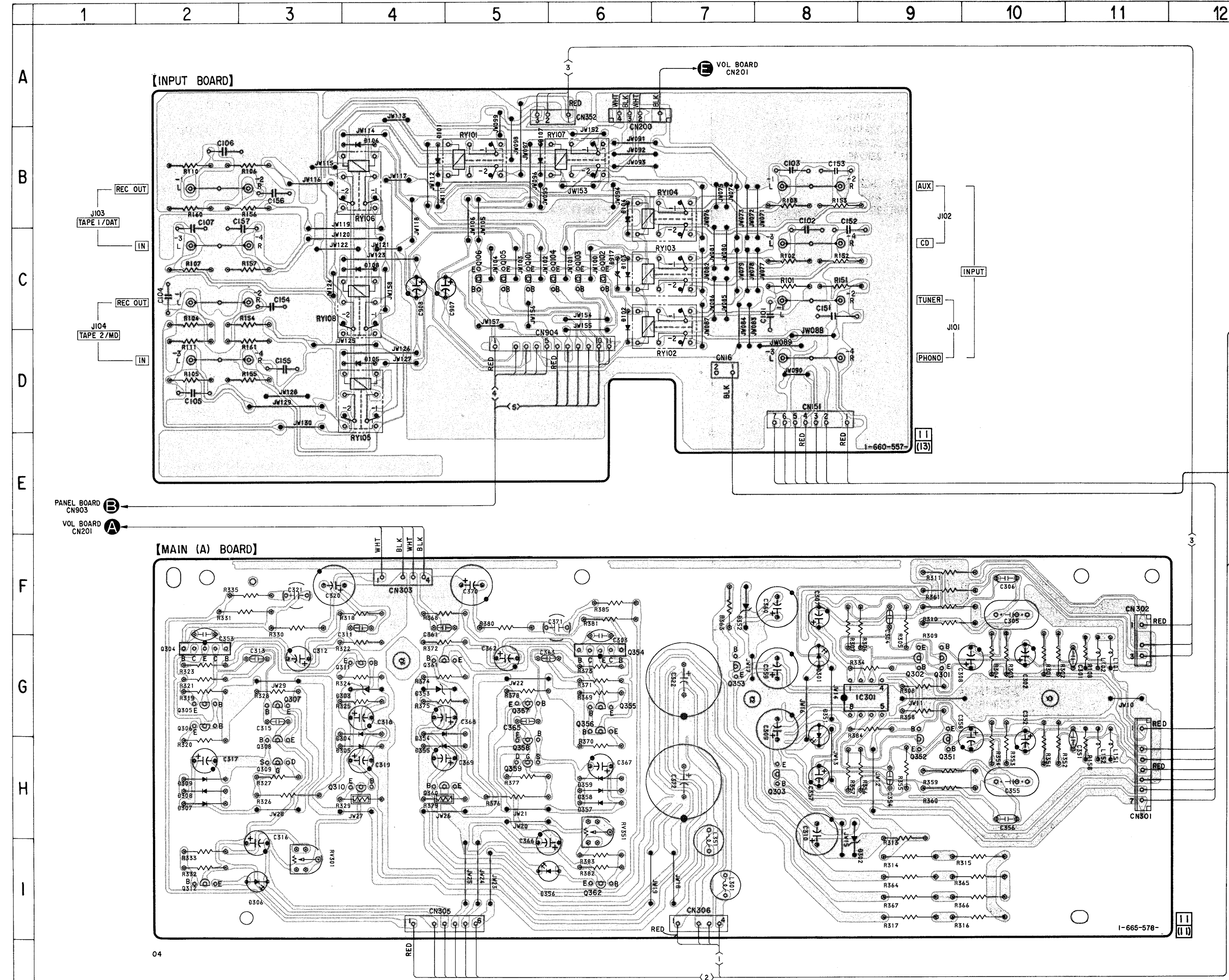
- Note :**
- All capacitors are in  $\mu$ F unless otherwise noted; pF :  $\mu$ F 50 WV or less are not indicated except for electrolytics and tantalums.
  - All resistors are in  $\Omega$  and 1/4 W or less unless otherwise specified.
- Note :** The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.
- $\Delta$  : nonflammable resistor.
  - $\Delta$  : fusible resistor.
  - $\Delta$  : B+ Line.
  - $\Delta$  : B- Line.
  - $\Delta$  : adjustment for repair.
  - Voltage is dc with respect to ground under no-signal conditions.
  - no mark : POWER ON
  - Voltage are taken with a VOM (Input Impedance 10 M $\Omega$ ).
  - Voltage variations may be noted due to normal production tolerance.
  - Signal path.
  - $\Delta$  : TUNER

2-3. SCHEMATIC DIAGRAM — MAIN SECTION —





2-4. PRINTED WIRING BOARDS — MAIN SECTION —



• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D101	B-4	Q101	C-5
D102	C-6	Q102	C-6
D103	C-6	Q103	C-6
D104	B-6	Q104	C-6
D105	D-4	Q105	C-5
D106	B-4	Q106	C-5
D107	B-5	Q301	G-9
D108	C-4	Q302	G-9
D301	G-8	Q303	H-8
D302	I-8	Q304	G-2
D303	G-4	Q305	G-2
D304	G-4	Q306	G-2
D305	H-4	Q307	G-3
D306	I-3	Q308	H-3
D307	H-2	Q309	H-3
D308	H-2	Q310	H-4
D309	H-2	Q311	G-4
D351	G-8	Q312	I-2
D352	F-7	Q351	G-9
D353	G-4	Q352	G-9
D354	G-4	Q353	G-7
D355	H-4	Q354	G-6
D356	I-5	Q355	G-6
D357	H-6	Q356	G-6
D358	H-6	Q357	G-5
D359	H-6	Q358	H-5
(D401)	D-14	Q359	H-5
<D403>	D-19	Q360	H-4
<D404>	D-19	Q361	G-4
<D405>	D-19	Q362	I-6
<D406>	D-19	Q401	F-14
D409	C-19	Q402	F-15
D410	C-19	Q403	G-18
D411	C-19	Q404	G-15
D412	D-19	Q405	F-18
D413	F-19	Q406B	G-19
(D451)	D-14	Q407	E-19
D501	C-24	Q430	B-19
D502	C-25	Q451	C-14
D701	F-25	Q452	C-15
D917	C-6	Q453	A-15
IC301	G-9	Q454	A-18
IC401	B-20	Q455	B-18

( ) : TA-FE710R only  
< > : TA-FE910R only

Note :  
• ○ : parts extracted from the component side.  
• ■ : Pattern on the side which is seen.



# SECTION 3 ELECTRICAL PARTS LIST

EON

HP

INPUT

## NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS  
All resistors are in ohms.  
METAL: Metal-film resistor.  
METAL OXIDE: Metal oxide-film resistor.  
F: nonflammable

- Items marked “\*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS  
In each case, u :  $\mu$ , for example:  
uA.. :  $\mu$ A.. uPA.. :  $\mu$ PA..  
uPB.. :  $\mu$ PB.. uPC.. :  $\mu$ PC.. uPD.. :  $\mu$ PD..
- CAPACITORS  
uF :  $\mu$ F
- COILS  
uH :  $\mu$ H

The components identified by mark  $\triangle$  or dotted line with mark.  $\triangle$  are critical for safety.  
Replace only with part number specified.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description	Remark				Ref. No.	Part No.	Description	Remark			
*	1-660-560-11	EON BOARD *****							< CONNECTOR >				
		< CONNECTOR >					CN200	1-691-766-11	PLUG (MICRO CONNECTOR) 4P				
							CN904	1-691-773-11	PLUG (MICRO CONNECTOR) 11P				
CN952	1-691-766-11	PLUG (MICRO CONNECTOR) 4P							< DIODE >				
		< DIODE >					D101	8-719-987-63	DIODE 1N4148M				
							D102	8-719-987-63	DIODE 1N4148M				
D901	8-719-313-50	LED SEL6810A-TH12 (EON LINK)					D103	8-719-987-63	DIODE 1N4148M				
		< RESISTOR >					D104	8-719-987-63	DIODE 1N4148M				
							D105	8-719-987-63	DIODE 1N4148M				
R901	1-249-393-11	CARBON 10 5% 1/4W					D106	8-719-987-63	DIODE 1N4148M				
		< SWITCH >					D107	8-719-987-63	DIODE 1N4148M				
							D108	8-719-987-63	DIODE 1N4148M				
S902	1-571-112-21	SWITCH, PUSH (1 KEY) (EON LINK)					D917	8-719-001-76	DIODE UZL-12M3				
*****									< JACK >				
*	1-662-375-11	HP BOARD *****					* J101	1-573-142-11	JACK, PIN 4P (TUNER,PHONO (INPUT))				
		< CONNECTOR >					* J102	1-573-142-21	JACK, PIN 4P (AUX,CD (INPUT))				
							* J103	1-573-142-21	JACK, PIN 4P (TAPE1/DAT)				
							* J104	1-573-142-21	JACK, PIN 4P (TAPE2/MD)				
CN961	1-691-765-11	PLUG (MICRO CONNECTOR) 3P							< TRANSISTOR >				
		< JACK >					Q101	8-729-900-80	TRANSISTOR DTC114ES				
							Q102	8-729-900-80	TRANSISTOR DTC114ES				
J701	1-750-735-11	JACK (LARGE TYPE) (PHONES)					Q103	8-729-900-80	TRANSISTOR DTC114ES				
*****							Q104	8-729-900-80	TRANSISTOR DTC114ES				
							Q105	8-729-900-80	TRANSISTOR DTC114ES				
*	1-660-557-11	INPUT BOARD *****					Q106	8-729-900-80	TRANSISTOR DTC114ES				
		< CAPACITOR >							< RESISTOR >				
C101	1-162-286-31	CERAMIC 220PF 10% 50V					R101	1-249-995-11	CARBON 1M 5% 1/4W				
C102	1-162-286-31	CERAMIC 220PF 10% 50V					R102	1-249-995-11	CARBON 1M 5% 1/4W				
C103	1-162-286-31	CERAMIC 220PF 10% 50V					R103	1-249-995-11	CARBON 1M 5% 1/4W				
C104	1-162-286-31	CERAMIC 220PF 10% 50V					R104	1-249-923-11	CARBON 1K 5% 1/4W				
C105	1-162-286-31	CERAMIC 220PF 10% 50V					R105	1-249-995-11	CARBON 1M 5% 1/4W				
C106	1-162-286-31	CERAMIC 220PF 10% 50V					R106	1-249-923-11	CARBON 1K 5% 1/4W				
C107	1-162-286-31	CERAMIC 220PF 10% 50V					R107	1-249-995-11	CARBON 1M 5% 1/4W				
C151	1-162-286-31	CERAMIC 220PF 10% 50V					R110	1-249-995-11	CARBON 1M 5% 1/4W				
C152	1-162-286-31	CERAMIC 220PF 10% 50V					R111	1-249-995-11	CARBON 1M 5% 1/4W				
C153	1-162-286-31	CERAMIC 220PF 10% 50V					R151	1-249-995-11	CARBON 1M 5% 1/4W				
C154	1-162-286-31	CERAMIC 220PF 10% 50V					R152	1-249-995-11	CARBON 1M 5% 1/4W				
C155	1-162-286-31	CERAMIC 220PF 10% 50V					R153	1-249-995-11	CARBON 1M 5% 1/4W				
C156	1-162-286-31	CERAMIC 220PF 10% 50V					R154	1-249-923-11	CARBON 1K 5% 1/4W				
C157	1-162-286-31	CERAMIC 220PF 10% 50V					R155	1-249-995-11	CARBON 1M 5% 1/4W				
C907	1-126-963-11	ELECT 4.7uF 20% 50V											
C908	1-126-963-11	ELECT 4.7uF 20% 50V											

INPUT	LED	MAIN (A)
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Ref. No.	Part No.	Description	Remark		
R156	1-249-923-11	CARBON	1K	5%	1/4W
R157	1-249-995-11	CARBON	1M	5%	1/4W
R160	1-249-995-11	CARBON	1M	5%	1/4W
R161	1-249-995-11	CARBON	1M	5%	1/4W

< RELAY >

RY101	1-515-614-11	RELAY			
RY102	1-515-614-11	RELAY			
RY103	1-515-614-11	RELAY			
RY104	1-515-614-11	RELAY			
RY105	1-515-614-11	RELAY			
RY106	1-515-614-11	RELAY			
RY107	1-515-614-11	RELAY			
RY108	1-515-614-11	RELAY			

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*	1-660-556-11	LED BOARD			
		*****			

< CONNECTOR >

CNJ902	1-766-796-11	CONNECTOR, BOARD TO BOARD 12P			
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< DIODE >

D600	8-719-313-50	LED SEL6810A-TH12 (SOURCE DIRECT)			
D601	8-719-313-50	LED SEL6810A-TH12 (TAPE1/DAT)			
D602	8-719-313-50	LED SEL6810A-TH12 (TAPE2/MD)			
D603	8-719-313-50	LED SEL6810A-TH12 (AUX)			
D604	8-719-313-50	LED SEL6810A-TH12 (CD)			
D605	8-719-313-50	LED SEL6810A-TH12 (TUNER)			
D606	8-719-313-50	LED SEL6810A-TH12 (PHONO)			

< RESISTOR >

R926	1-247-751-11	CARBON	820	5%	1/2W
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*	A-4398-039-A	MAIN (A) BOARD, COMPLETE (FE910R)			
*	A-4398-043-A	MAIN (A) BOARD, COMPLETE (FE710R)			
		*****			

< CAPACITOR >

C301	1-102-978-00	CERAMIC	220PF	5%	50V
C302	1-126-059-11	ELECT	10uF	20%	50V
C303	1-164-062-11	CERAMIC	47PF	5%	50V
C304	1-106-359-00	MYLAR	0.0047uF	5%	200V
C305	1-130-341-00	FILM	0.056uF	3%	100V
					(FE910R)
C305	1-136-162-00	FILM	0.056uF	5%	50V
					(FE710R)
C306	1-130-971-00	FILM	0.016uF	3%	100V
					(FE910R)
C306	1-137-471-11	FILM	0.016uF	5%	50V
					(FE710R)
C307	1-126-059-11	ELECT	10uF	20%	50V
C308	1-126-022-11	ELECT	47uF	20%	25V

Ref. No.	Part No.	Description			Remark
C309	1-126-025-11	ELECT	330uF	20%	25V
C310	1-126-023-11	ELECT	100uF	20%	25V
C311	1-102-973-00	CERAMIC	100PF	5%	50V
C312	1-124-721-11	ELECT	10uF	20%	50V
C313	1-104-298-11	POLYSTYRENE	680PF	5%	50V
					(FE910R)

C313	1-164-083-11	CERAMIC	680PF	10%	50V
					(FE710R)
C315	1-107-589-11	CERAMIC	9PF	0.5PF	500V
C316	1-126-023-11	ELECT	100uF	20%	16V
C317	1-126-023-11	ELECT	100uF	20%	16V
C318	1-126-023-11	ELECT	100uF	20%	16V

C319	1-126-023-11	ELECT	100uF	20%	16V
C320	1-110-393-11	ELECT	100uF	20%	63V
C321	1-113-496-11	POLYSTYRENE	4PF	10%	50V
					(FE910R)
C321	1-164-040-11	CERAMIC	4PF	0.25PF	50V
					(FE710R)
C322	1-109-871-11	ELECT	2700uF	20%	50V
					(FE910R)

C322	1-126-057-11	ELECT	2200uF	20%	50V
					(FE710R)
C351	1-102-978-00	CERAMIC	220PF	5%	50V
C352	1-126-059-11	ELECT	10uF	20%	50V
C353	1-164-062-11	CERAMIC	47PF	5%	50V
C354	1-106-359-00	MYLAR	0.0047uF	5%	200V

C355	1-130-341-00	FILM	0.056uF	3%	100V
					(FE910R)
C355	1-136-162-00	FILM	0.056uF	5%	50V
					(FE710R)
C356	1-130-971-00	FILM	0.016uF	3%	100V
					(FE910R)
C356	1-137-471-11	FILM	0.016uF	5%	50V
					(FE710R)
C357	1-126-059-11	ELECT	10uF	20%	50V

C358	1-126-022-11	ELECT	47uF	20%	25V
C359	1-126-025-11	ELECT	330uF	20%	25V
C360	1-126-023-11	ELECT	100uF	20%	25V
C361	1-102-973-00	CERAMIC	100PF	5%	50V
C362	1-124-721-11	ELECT	10uF	20%	50V

C363	1-104-298-11	POLYSTYRENE	680PF	5%	50V
					(FE910R)
C363	1-164-083-11	CERAMIC	680PF	10%	50V
					(FE710R)
C365	1-107-589-11	CERAMIC	9PF	0.5PF	500V
C366	1-126-023-11	ELECT	100uF	20%	16V
C367	1-126-023-11	ELECT	100uF	20%	16V

C368	1-126-023-11	ELECT	100uF	20%	16V
C369	1-126-023-11	ELECT	100uF	20%	16V
C370	1-110-393-11	ELECT	100uF	20%	63V
C371	1-113-496-11	POLYSTYRENE	4PF	10%	50V
					(FE910R)
C371	1-164-040-11	CERAMIC	4PF	0.25PF	50V
					(FE710R)

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C372	1-109-871-11	ELECT 2700uF 20% 50V (FE910R)		Q312	8-729-281-54	TRANSISTOR 2SC1815-BL	
C372	1-126-057-11	ELECT 2200uF 20% 50V (FE710R)		Q351	8-729-354-52	TRANSISTOR 2SC2545	
		< CONNECTOR >		Q352	8-729-354-52	TRANSISTOR 2SC2545	
CN301	1-691-769-11	PLUG (MICRO CONNECTOR) 7P		Q353	8-729-201-53	TRANSISTOR 2SA1015-GR	
CN302	1-691-765-11	PLUG (MICRO CONNECTOR) 3P		Q354	8-729-620-17	TRANSISTOR 2SC2259-FG	
		< DIODE >		Q355	8-729-201-53	TRANSISTOR 2SA1015-GR	
D301	8-719-310-61	LED SEL1510C-D		Q356	8-729-201-53	TRANSISTOR 2SA1015-GR	
D302	8-719-933-88	DIODE HZS16-2L		Q357	8-729-201-53	TRANSISTOR 2SA1015-GR	
D303	8-719-933-41	DIODE HZS6C3L		Q358	8-729-021-74	TRANSISTOR 2SA949-OY-TPE6	
D304	8-719-987-63	DIODE 1N4148M		Q359	8-729-202-67	TRANSISTOR 2SK246-GR3	
D305	8-719-987-63	DIODE 1N4148M		Q360	8-729-021-73	TRANSISTOR 2SC2229-OY-TPE6	
		< RESISTOR >		Q361	8-729-281-54	TRANSISTOR 2SC1815-BL	
D306	8-719-310-61	LED SEL1510C-D		Q362	8-729-281-54	TRANSISTOR 2SC1815-BL	
D307	8-719-987-63	DIODE 1N4148M					
D308	8-719-987-63	DIODE 1N4148M		R108	1-259-436-11	CARBON 2.2K 5% 1/6W	
D309	8-719-987-63	DIODE 1N4148M		R158	1-259-436-11	CARBON 2.2K 5% 1/6W	
D351	8-719-310-61	LED SEL1510C-D		R301	1-259-215-21	CARBON 100K 5% 1/4W	
				R302	1-249-911-11	CARBON 330 5% 1/4W	
D352	8-719-933-88	DIODE HZS16-2L		R303	1-259-215-21	CARBON 100K 5% 1/4W	
D353	8-719-933-41	DIODE HZS6C3L		R304	1-249-900-11	CARBON 110 1% 1/4W	
D354	8-719-987-63	DIODE 1N4148M		R305	1-259-161-21	CARBON 560 5% 1/4W	
D355	8-719-987-63	DIODE 1N4148M		R306	1-259-161-21	CARBON 560 5% 1/4W	
D356	8-719-310-61	LED SEL1510C-D		R307	1-259-143-21	CARBON 100 5% 1/4W	
				R308	1-259-191-21	CARBON 10K 5% 1/4W	
D357	8-719-987-63	DIODE 1N4148M		R309	1-249-844-11	CARBON 56K 1% 1/2W	
D358	8-719-987-63	DIODE 1N4148M		R310	1-259-320-11	CARBON 4.7K 1% 1/2W	
D359	8-719-987-63	DIODE 1N4148M		R311	1-259-167-21	CARBON 1K 5% 1/4W	
		< IC >		R313	1-249-943-11	CARBON 6.8K 5% 1/4W	
IC301	8-759-701-25	IC NJM2068D-D		R314	1-249-198-11	CARBON 330 5% 1/3W	
		< COIL >		R315	1-249-198-11	CARBON 330 5% 1/3W	
L101	1-410-977-11	INDUCTOR 100uH		R316	1-249-198-11	CARBON 330 5% 1/3W	
L102	1-410-977-11	INDUCTOR 100uH		R317	1-249-198-11	CARBON 330 5% 1/3W	
L151	1-410-977-11	INDUCTOR 100uH		R318	1-259-167-21	CARBON 1K 5% 1/4W	
L152	1-410-977-11	INDUCTOR 100uH		R319	1-259-151-21	CARBON 220 5% 1/4W	
L301	1-428-203-11	COIL, AIR-CORE		R320	1-259-151-21	CARBON 220 5% 1/4W	
				R321	1-259-151-21	CARBON 220 5% 1/4W	
L351	1-428-203-11	COIL, AIR-CORE		R322	1-259-215-21	CARBON 100K 5% 1/4W	
		< TRANSISTOR >		R323	1-259-179-21	CARBON 3.3K 5% 1/4W	
Q301	8-729-354-52	TRANSISTOR 2SC2545		R324	1-259-175-11	CARBON 2.2K 5% 1/4W	
Q302	8-729-354-52	TRANSISTOR 2SC2545		R325	1-259-183-11	CARBON 4.7K 5% 1/4W	
Q303	8-729-281-54	TRANSISTOR 2SC1815-BL		R326	1-249-490-11	CARBON 27K 5% 1/3W	
Q304	8-729-620-17	TRANSISTOR 2SC2259-FG		R327	1-259-151-21	CARBON 220 5% 1/4W	
Q305	8-729-201-53	TRANSISTOR 2SA1015-GR		R328	1-259-151-21	CARBON 220 5% 1/4W	
				△R329	1-249-899-11	CARBON 100 5% 1/4W F	
Q306	8-729-201-53	TRANSISTOR 2SA1015-GR		R330	1-247-749-11	CARBON 560 5% 1/2W	
Q307	8-729-201-53	TRANSISTOR 2SA1015-GR		R331	1-249-496-11	CARBON 100K 5% 1/3W	
Q308	8-729-021-74	TRANSISTOR 2SA949-OY-TPE6		R332	1-259-171-21	CARBON 1.5K 5% 1/4W	
Q309	8-729-202-67	TRANSISTOR 2SK246-GR3		R333	1-259-167-21	CARBON 1K 5% 1/4W	
Q310	8-729-021-73	TRANSISTOR 2SC2229-OY-TPE6		R334	1-259-239-11	CARBON 1M 5% 1/4W	
				R335	1-259-143-21	CARBON 100 5% 1/4W	
Q311	8-729-281-54	TRANSISTOR 2SC1815-BL		R351	1-259-215-21	CARBON 100K 5% 1/4W	
				R352	1-249-911-11	CARBON 330 5% 1/4W	

The components identified by mark △ or dotted line with mark. △ are critical for safety.  
Replace only with part number specified.

# MAIN (A)

# MAIN (B)

Ref. No.	Part No.	Description	Remark
R353	1-259-215-21	CARBON 100K 5%	1/4W
R354	1-249-900-11	CARBON 110 1%	1/4W
R355	1-259-161-21	CARBON 560 5%	1/4W
R356	1-259-161-21	CARBON 560 5%	1/4W
R357	1-259-143-21	CARBON 100 5%	1/4W
R358	1-259-191-21	CARBON 10K 5%	1/4W
R359	1-249-844-11	CARBON 56K 1%	1/2W
R360	1-259-320-11	CARBON 4.7K 1%	1/2W
R361	1-259-167-21	CARBON 1K 5%	1/4W
R363	1-249-943-11	CARBON 6.8K 5%	1/4W
R364	1-249-198-11	CARBON 330 5%	1/3W
R365	1-249-198-11	CARBON 330 5%	1/3W
R366	1-249-198-11	CARBON 330 5%	1/3W
R367	1-249-198-11	CARBON 330 5%	1/3W
R368	1-259-167-21	CARBON 1K 5%	1/4W
R369	1-259-151-21	CARBON 220 5%	1/4W
R370	1-259-151-21	CARBON 220 5%	1/4W
R371	1-259-151-21	CARBON 220 5%	1/4W
R372	1-259-215-21	CARBON 100K 5%	1/4W
R373	1-259-179-21	CARBON 3.3K 5%	1/4W
R374	1-259-175-11	CARBON 2.2K 5%	1/4W
R375	1-259-183-11	CARBON 4.7K 5%	1/4W
R376	1-249-490-11	CARBON 27K 5%	1/3W
R377	1-259-151-21	CARBON 220 5%	1/4W
R378	1-259-151-21	CARBON 220 5%	1/4W
△ R379	1-249-899-11	CARBON 100 5%	1/4W F
R380	1-247-749-11	CARBON 560 5%	1/2W
R381	1-249-496-11	CARBON 100K 5%	1/3W
R382	1-259-171-21	CARBON 1.5K 5%	1/4W
R383	1-259-167-21	CARBON 1K 5%	1/4W
R384	1-259-239-11	CARBON 1M 5%	1/4W
R385	1-259-143-21	CARBON 100 5%	1/4W

< VARIABLE RESISTOR >

RV301 1-241-762-11 RES, ADJ, CARBON 2.2K  
RV351 1-241-762-11 RES, ADJ, CARBON 2.2K

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\* A-4398-040-A MAIN (B) BOARD, COMPLETE (FE910R)  
\* A-4398-044-A MAIN (B) BOARD, COMPLETE (FE710R)

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< CAPACITOR >

C401	1-136-163-00	FILM 0.068uF 5%	50V
C402	1-136-163-00	FILM 0.068uF 5%	50V
C403	1-109-871-11	ELECT 2700uF 20%	50V (FE910R)
C404	1-124-920-11	ELECT 330uF 20%	50V (FE910R)
C405	1-136-163-00	FILM 0.068uF 5%	50V
C406	1-126-923-11	ELECT 220uF 20%	10V
C407	1-136-157-00	FILM 0.022uF 5%	50V
C408	1-126-967-11	ELECT 47uF 20%	16V

C409	1-109-870-11	ELECT 8200uF 20%	50V (FE710R)
C409	1-117-761-11	ELECT 10000uF 20%	56V (FE910R)
C411	1-126-967-11	ELECT 47uF 20%	50V
C412	1-126-972-11	ELECT 1000uF 20%	50V
C413	1-126-960-11	ELECT 1uF 20%	50V
C414	1-104-999-11	MYLAR 0.1uF 10%	200V (FE910R)
C415	1-126-025-11	ELECT 330uF 20%	25V
C416	1-126-967-11	ELECT 47uF 20%	16V
C417	1-126-964-11	ELECT 10uF 20%	50V
C418	1-126-964-11	ELECT 10uF 20%	50V
C419	1-164-077-11	CERAMIC 220PF 10%	50V
C420	1-136-153-00	FILM 0.01uF 5%	50V
C421	1-137-150-11	MYLAR 0.01uF 10%	100V
C422	1-137-150-11	MYLAR 0.01uF 10%	100V
C430	1-126-965-11	ELECT 22uF 20%	50V
C444	1-137-398-11	FILM 0.068uF 5%	100V
C451	1-136-163-00	FILM 0.068uF 5%	50V
C452	1-136-163-00	FILM 0.068uF 5%	50V
C453	1-109-871-11	ELECT 2700uF 20%	50V (FE910R)
C454	1-124-920-11	ELECT 330uF 20%	50V (FE910R)
C459	1-109-870-11	ELECT 8200uF 20%	50V (FE710R)
C459	1-117-761-11	ELECT 10000uF 20%	56V (FE910R)
C464	1-137-398-11	FILM 0.068uF 5%	100V
C465	1-126-025-11	ELECT 330uF 20%	25V
C468	1-126-967-11	ELECT 47uF 20%	50V
C469	1-164-077-11	CERAMIC 220PF 10%	50V

< CONNECTOR >

CN401 1-691-768-11 PLUG (MICRO CONNECTOR) 6P  
CN402 1-691-766-11 PLUG (MICRO CONNECTOR) 4P  
\* CN403A 1-564-104-00 PIN, CONNECTOR (B3P-VH) 3P  
\* CN404A 1-564-320-00 PIN, CONNECTOR (B2P-VH) 2P  
CN405 1-691-768-11 PLUG (MICRO CONNECTOR) 6P

CN406 1-564-506-11 PLUG, CONNECTOR 3P  
CN407 1-564-506-11 PLUG, CONNECTOR 3P  
\* CN408 1-564-687-11 PIN, CONNECTOR 3P

< DIODE >

D401	8-719-024-99	DIODE 11ES2-NTA2B (FE710R)
D403	8-719-024-99	DIODE 11ES2-NTA2B (FE910R)
D404	8-719-024-99	DIODE 11ES2-NTA2B (FE910R)
D405	8-719-024-99	DIODE 11ES2-NTA2B (FE910R)
D406	8-719-024-99	DIODE 11ES2-NTA2B (FE910R)
D409	8-719-024-99	DIODE 11ES2-NTA2B
D410	8-719-024-99	DIODE 11ES2-NTA2B
D411	8-719-024-99	DIODE 11ES2-NTA2B
D412	8-719-302-38	DIODE RBV-602-01

The components identified by mark △ or dotted line with mark. △ are critical for safety.  
Replace only with part number specified.



## MAIN (B)

## OUTLET

## PANEL

Ref. No.	Part No.	Description	Remark			
D413	8-719-933-39	DIODE HZS6C1L				
D451	8-719-024-99	DIODE 11ES2-NTA2B (FE710R)				
		< MOUNT TERMINAL >				
* EPT401	4-924-264-31	TERMINAL, MOUNT				
		< IC >				
IC401	8-759-111-68	IC uPC1237HA				
		< TRANSISTOR >				
Q401	8-729-104-18	TRANSISTOR 2SC3514-Q				
Q402	8-729-104-91	TRANSISTOR 2SA1383				
Q405	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA				
Q407	8-729-281-54	TRANSISTOR 2SC1815-BL				
Q430	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q451	8-729-104-18	TRANSISTOR 2SC3514-Q				
Q452	8-729-104-91	TRANSISTOR 2SA1383				
Q455	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA				
		< RESISTOR >				
△ R401	1-249-393-11	CARBON	10	5%	1/4W	F
△ R402	1-249-393-11	CARBON	10	5%	1/4W	F
△ R403	1-249-405-11	CARBON	100	5%	1/4W	F
△ R404	1-249-405-11	CARBON	100	5%	1/4W	F
△ R405	1-247-745-11	CARBON	330	5%	1/2W	F
△ R406	1-208-601-11	WIREWOUND	0.1	10%	2W	F
△ R407	1-208-601-11	WIREWOUND	0.1	10%	2W	F
R409	1-259-436-11	CARBON	2.2K	5%	1/6W	
R410	1-259-432-11	CARBON	1.5K	5%	1/6W	
R411	1-249-162-11	CARBON	10	5%	1/3W	
R412	1-259-488-11	CARBON	330K	5%	1/6W	
R413	1-259-452-11	CARBON	10K	5%	1/6W	
R414	1-259-484-11	CARBON	220K	5%	1/6W	
R415	1-259-460-11	CARBON	22K	5%	1/6W	
R416	1-259-480-11	CARBON	150K	5%	1/6W	
R417	1-259-456-11	CARBON	15K	5%	1/6W	
R418	1-259-460-11	CARBON	22K	5%	1/6W	
R420	1-249-437-11	CARBON	47K	5%	1/4W	
△ R421	1-212-974-00	FUSIBLE	47	5%	1/2W	F (FE910R)
△ R423	1-212-990-00	FUSIBLE	220	5%	1/2W	F (FE910R)
R430	1-259-452-11	CARBON	10K	5%	1/6W	
R431	1-259-460-11	CARBON	22K	5%	1/6W	(FE710R)
R431	1-259-464-11	CARBON	33K	5%	1/6W	(FE910R)
△ R451	1-249-393-11	CARBON	10	5%	1/4W	F
△ R452	1-249-393-11	CARBON	10	5%	1/4W	F
△ R453	1-249-405-11	CARBON	100	5%	1/4W	F
△ R454	1-249-405-11	CARBON	100	5%	1/4W	F
△ R455	1-247-745-11	CARBON	330	5%	1/2W	F
△ R456	1-208-601-11	WIREWOUND	0.1	10%	2W	F

Ref. No.	Part No.	Description	Remark			
△ R457	1-208-601-11	WIREWOUND	0.1	10%	2W	F
R459	1-259-436-11	CARBON	2.2K	5%	1/6W	
R460	1-259-432-11	CARBON	1.5K	5%	1/6W	
R461	1-249-162-11	CARBON	10	5%	1/3W	
R462	1-259-488-11	CARBON	330K	5%	1/6W	
*****						
*	1-665-582-11	OUTLET BOARD	*****			
*****						
*	A-4389-812-A	PANEL BOARD, COMPLETE	*****			
< CAPACITOR >						
C200	1-130-475-00	MYLAR	0.0022uF	5%	50V	
C201	1-136-153-00	FILM	0.01uF	5%	50V	
C202	1-136-155-00	FILM	0.015uF	5%	50V	
C203	1-136-165-00	FILM	0.1uF	5%	50V	
C208	1-130-471-00	MYLAR	0.001uF	5%	50V	
C209	1-136-171-00	FILM	0.33uF	5%	50V	
C210	1-136-165-00	FILM	0.1uF	5%	50V	
C250	1-130-475-00	MYLAR	0.0022uF	5%	50V	
C251	1-136-153-00	FILM	0.01uF	5%	50V	
C252	1-136-155-00	FILM	0.015uF	5%	50V	
C253	1-136-165-00	FILM	0.1uF	5%	50V	
C258	1-130-471-00	MYLAR	0.001uF	5%	50V	
C259	1-136-171-00	FILM	0.33uF	5%	50V	
C260	1-136-165-00	FILM	0.1uF	5%	50V	
C900	1-126-964-11	ELECT	10uF	20%	50V	
C901	1-126-916-11	ELECT	1000uF	20%	6.3V	
C902	1-164-159-11	CERAMIC	0.1uF		50V	
C903	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C906	1-126-964-11	ELECT	10uF	20%	50V	
C909	1-128-551-11	ELECT	22uF	20%	63V	
C910	1-126-933-11	ELECT	100uF	20%	10V	
C912	1-126-964-11	ELECT	10uF	20%	50V	
< CONNECTOR >						
CN455	1-691-768-11	PLUG (MICRO CONNECTOR) 6P				
CN900	1-691-766-11	PLUG (MICRO CONNECTOR) 4P				
CN901	1-691-766-21	PLUG (MICRO CONNECTOR) 4P				
CN902	1-691-766-11	PLUG (MICRO CONNECTOR) 4P				
* CN903	1-564-527-11	PLUG, CONNECTOR 12P				
* CNP900	1-568-318-21	PLUG, CONNECTOR 6P				
* CNP901	1-568-320-11	PLUG, CONNECTOR 8P				
CNP902	1-774-936-11	CONNECTOR, BOARD TO BOARD 12P				
< DIODE >						
D902	8-719-987-63	DIODE 1N4148M				
D903	8-719-024-99	DIODE 11ES2-NTA2B				
D904	8-719-987-63	DIODE 1N4148M				
D905	8-719-987-63	DIODE 1N4148M				
D906	8-719-987-63	DIODE 1N4148M				

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Replace only with part number specified.

# PANEL

Ref. No.	Part No.	Description	Remark				Ref. No.	Part No.	Description	Remark			
D908	8-719-987-63	DIODE 1N4148M					R252	1-259-446-11	CARBON 5.6K 5%	1/6W			
D909	8-719-987-63	DIODE 1N4148M					R253	1-259-436-11	CARBON 2.2K 5%	1/6W			
D910	8-719-987-63	DIODE 1N4148M					R254	1-259-464-11	CARBON 33K 5%	1/6W			
D911	8-719-987-63	DIODE 1N4148M					R255	1-259-446-11	CARBON 5.6K 5%	1/6W			
D912	8-719-987-63	DIODE 1N4148M					R256	1-259-500-11	CARBON 1M 5%	1/6W			
D913	8-719-985-59	DIODE HZS4CLL-TA					R257	1-259-456-11	CARBON 15K 5%	1/6W			
D914	8-719-987-63	DIODE 1N4148M					R258	1-259-456-11	CARBON 15K 5%	1/6W			
D915	8-719-987-63	DIODE 1N4148M					R259	1-259-500-11	CARBON 1M 5%	1/6W			
D916	8-719-987-63	DIODE 1N4148M					R260	1-259-500-11	CARBON 1M 5%	1/6W			
D919	8-719-987-63	DIODE 1N4148M					R270	1-259-464-11	CARBON 33K 5%	1/6W			
< IC >													
IC901	8-759-962-08	IC BA6208					R419	1-249-429-11	CARBON 10K 5%	1/4W			
IC902	8-759-392-41	IC TMP47C103N-JP47					R902	1-249-429-11	CARBON 10K 5%	1/4W			
< PHOTO COUPLER >													
PH900	8-719-902-56	PHOTO COUPLER PC817					R903	1-249-429-11	CARBON 10K 5%	1/4W			
< TRANSISTOR >													
Q900	8-729-620-05	TRANSISTOR 2SC2603-EF					R905	1-249-429-11	CARBON 10K 5%	1/4W			
Q901	8-729-900-63	TRANSISTOR DTA124ES					R908	1-249-429-11	CARBON 10K 5%	1/4W			
Q902	8-729-900-63	TRANSISTOR DTA124ES					R909	1-249-429-11	CARBON 10K 5%	1/4W			
Q903	8-729-900-80	TRANSISTOR DTC114ES					R910	1-249-400-11	CARBON 39 5%	1/4W			
Q904	8-729-422-57	TRANSISTOR UN4111					R911	1-249-411-11	CARBON 330 5%	1/4W			
Q905	8-729-422-57	TRANSISTOR UN4111					R912	1-249-429-11	CARBON 10K 5%	1/4W			
Q906	8-729-422-57	TRANSISTOR UN4111					R913	1-249-425-11	CARBON 4.7K 5%	1/4W			
Q907	8-729-119-78	TRANSISTOR 2SC2785-HFE					R914	1-247-807-11	CARBON 100 5%	1/4W			
Q908	8-729-620-05	TRANSISTOR 2SC2603-EF					R916	1-247-751-11	CARBON 820 5%	1/2W			
Q909	8-729-620-05	TRANSISTOR 2SC2603-EF					R917	1-249-433-11	CARBON 22K 5%	1/4W			
Q910	8-729-201-53	TRANSISTOR 2SA1015-GR					R918	1-247-843-11	CARBON 3.3K 5%	1/4W			
Q911	8-729-142-36	TRANSISTOR BN1L3Z					R919	1-247-843-11	CARBON 3.3K 5%	1/4W			
Q912	8-729-422-57	TRANSISTOR UN4111					R920	1-249-429-11	CARBON 10K 5%	1/4W			
Q913	8-729-422-57	TRANSISTOR UN4111					R921	1-249-429-11	CARBON 10K 5%	1/4W			
Q914	8-729-422-57	TRANSISTOR UN4111					R922	1-249-429-11	CARBON 10K 5%	1/4W			
Q915	8-729-422-57	TRANSISTOR UN4111					R923	1-249-429-11	CARBON 10K 5%	1/4W			
Q916	8-729-422-57	TRANSISTOR UN4111					R924	1-249-429-11	CARBON 10K 5%	1/4W			
Q917	8-729-422-57	TRANSISTOR UN4111					R927	1-249-406-11	CARBON 120 5%	1/4W			
< RESISTOR >													
R200	1-259-500-11	CARBON 1M 5%	1/6W				R958	1-249-406-11	CARBON 120 5%	1/4W			
R201	1-259-446-11	CARBON 5.6K 5%	1/6W				< VARIABLE RESISTOR >						
R202	1-259-446-11	CARBON 5.6K 5%	1/6W				RV200	1-223-933-21	RES, VAR, CARBON 250K/250K (BALANCE)				
R203	1-259-436-11	CARBON 2.2K 5%	1/6W				RV201	1-223-934-21	RES, VAR, CARBON 250K/250K (TREBLE (TONE))				
R204	1-259-464-11	CARBON 33K 5%	1/6W				RV202	1-223-935-21	RES, VAR, CARBON 900K/900K (BASS (TONE))				
R205	1-259-446-11	CARBON 5.6K 5%	1/6W				< SWITCH >						
R206	1-259-500-11	CARBON 1M 5%	1/6W				S200	1-571-828-11	SWITCH, PUSH (1 KEY) (SOURCE DIRECT)				
R207	1-259-456-11	CARBON 15K 5%	1/6W				S201	1-762-387-11	SWITCH, PUSH (LOUDNESS)				
R208	1-259-456-11	CARBON 15K 5%	1/6W				S202	1-571-112-21	SWITCH, PUSH (1 KEY) (SUBSONIC)				
R209	1-259-500-11	CARBON 1M 5%	1/6W				S203	1-762-656-11	SWITCH, ROTARY (TAPE MONITOR)				
R210	1-259-500-11	CARBON 1M 5%	1/6W				S901	1-692-974-11	SWITCH, ROTARY (INPUT SELECTOR)				
R220	1-259-464-11	CARBON 33K 5%	1/6W				< VIBRATOR >						
R250	1-259-500-11	CARBON 1M 5%	1/6W				X900	1-577-358-21	VIBRATOR, CERAMIC (4MHz)				
R251	1-259-446-11	CARBON 5.6K 5%	1/6W				*****						

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	1-660-561-11	PRO IND BOARD *****				< RELAY >	
		< CONNECTOR >		RY701	1-515-614-11	RELAY	
						< SWITCH >	
CN951	1-691-766-21	PLUG (MICRO CONNECTOR) 4P		S900	1-762-654-11	SWITCH, ROTARY SLIDE (SPEAKERS)	
		< DIODE >		*****			
D900	8-719-313-48	LED SEL6210S-TH12 (PROTECTION)		*	1-665-580-11	SP TM BOARD *****	
		< IC >			1-533-233-11	HOLDER, FUSE	
IC900	8-759-373-49	IC NJL54H400				< CAPACITOR >	
		< RESISTOR >		C501	1-164-159-11	CERAMIC 0.1uF	50V
R900	1-249-409-11	CARBON 220 5% 1/4W				< CONNECTOR >	
*****							
*	1-660-564-11	SP SW BOARD *****		CN503	1-566-212-11	PIN, CONNECTOR 3P (EON CONTROL)	
		< CONNECTOR >		CN802	1-564-321-00	PIN, CONNECTOR 2P	
				CN804	1-580-230-11	PIN, CONNECTOR (PC BOARD) 2P	
CN552	1-691-771-11	PLUG (MICRO CONNECTOR) 9P		* CN808	1-564-321-21	PIN, CONNECTOR 2P	
CN950	1-691-766-11	PLUG (MICRO CONNECTOR) 4P		* CN809	1-565-792-11	PIN, CONNECTOR 2P	
CN960	1-691-765-11	PLUG (MICRO CONNECTOR) 3P				< DIODE >	
		< DIODE >		D501	8-719-987-63	DIODE 1N4148M	
				D502	8-719-987-63	DIODE 1N4148M	
D701	8-719-987-63	DIODE 1N4148M				< FUSE >	
		< RESISTOR >		△F801	1-532-464-51	FUSE, TIME LAG (T2.5AL/250V) (FE710R)	
				△F801	1-532-465-51	FUSE, TIME LAG (T3.15AL/250V) (FE910R)	
				△F802	1-532-464-51	FUSE, TIME LAG (T2.5AL/250V)	
R928	1-247-751-11	CARBON 820 5% 1/2W				< COIL >	
R929	1-247-751-11	CARBON 820 5% 1/2W					
R930	1-247-751-11	CARBON 820 5% 1/2W		L501	1-411-906-11	COIL, AIR-CORE	
R931	1-247-751-11	CARBON 820 5% 1/2W		L551	1-411-906-11	COIL, AIR-CORE	
R932	1-247-751-11	CARBON 820 5% 1/2W				< RESISTOR >	
				R501	1-249-162-11	CARBON 10 5% 1/3W	
R933	1-247-751-11	CARBON 820 5% 1/2W		R502	1-247-750-11	CARBON 680 5% 1/2W	
R934	1-247-231-00	CARBON 430 5% 1/2W (FE710R)		R551	1-249-162-11	CARBON 10 5% 1/3W	
				R552	1-247-750-11	CARBON 680 5% 1/2W	
R934	1-247-747-11	CARBON 470 5% 1/2W (FE910R)				< RELAY >	
R935	1-247-231-00	CARBON 430 5% 1/2W (FE710R)		RY501	1-515-921-11	RELAY (12V)	
R935	1-247-747-11	CARBON 470 5% 1/2W (FE910R)		RY502	1-515-921-11	RELAY (12V)	
						< TERMINAL >	
R936	1-247-231-00	CARBON 430 5% 1/2W (FE710R)		* TM501	1-537-519-11	TERMINAL BOARD (SPEAKERS)	
R936	1-247-747-11	CARBON 470 5% 1/2W (FE910R)		*****			
R937	1-247-231-00	CARBON 430 5% 1/2W (FE710R)					
R937	1-247-747-11	CARBON 470 5% 1/2W (FE910R)					
R938	1-247-243-00	CARBON 1.3K 5% 1/2W					
R939	1-247-243-00	CARBON 1.3K 5% 1/2W					

The components identified by mark △ or dotted line with mark. △ are critical for safety.  
Replace only with part number specified.

VOL

Ref. No.	Part No.	Description	Remark
*	1-660-559-11	VOL BOARD *****	
		< CAPACITOR >	
C904	1-136-165-00	FILM 0.1uF 5% 50V	
		< CONNECTOR >	
CN201	1-691-766-11	PLUG (MICRO CONNECTOR) 8P	
CNJ900	1-568-317-11	SOCKET, CONNECTOR 6P	
CNJ901	1-568-319-11	SOCKET, CONNECTOR 8P	
		< VARIABLE RESISTOR >	
RV203	1-225-227-11	RES, VAR, CARBON 120K/120K (VOLUME)	
*****			
		MISCELLANEOUS *****	
△ 56	1-777-185-11	CORD, POWER	
△ CNJ801	1-526-794-11	OUTLET, AC (AC OUTLET)	
△ CNJ802	1-526-794-11	OUTLET, AC (AC OUTLET)	
△ CNJ803	1-526-794-11	OUTLET, AC (AC OUTLET)	
△ F801	1-532-464-51	FUSE, TIME LAG (T2.5AL/250V) (FE710R)	
△ F801	1-532-465-51	FUSE, TIME LAG (T3.15AL/250V) (FE910R)	
△ F802	1-532-464-51	FUSE, TIME LAG (T2.5AL/250V)	
Q403	8-729-232-45	TRANSISTOR 2SK1529-Y	
Q404	8-729-232-46	TRANSISTOR 2SJ200-Y	
Q406B	8-729-209-15	TRANSISTOR 2SD2012	
Q453	8-729-232-45	TRANSISTOR 2SK1529-Y	
Q454	8-729-232-46	TRANSISTOR 2SJ200-Y	
△ S1	1-554-920-11	SWITCH, PUSH (AC POWER) (1 KEY) (POWER)	
△ T1	1-431-275-11	TRANSFORMER, POWER (FE910R)	
△ T1	1-431-276-11	TRANSFORMER, POWER (FE710R)	
*****			
		ACCESSORIES & PACKING MATERIALS *****	
	1-473-656-11	REMOTE COMMANDER (RM-S316)	
	3-860-499-11	MANUAL, INSTRUCTION (ENGLISH,FRENCH, SPANISH,PORTUGUESE)	
	3-860-499-21	MANUAL, INSTRUCTION (GERMAN,DUTCH, SWEDISH,ITALIAN)	
	4-981-643-01	COVER, BATTERY (FOR RM-S316)	

The components identified by mark △ or dotted line with mark. △ are critical for safety.  
Replace only with part number specified.



# TA-FE700R/FE900R

## SERVICE MANUAL

*AEP Model*



Photo : TA-FE700R

### SPECIFICATIONS

#### Amplifier section

##### DIN power output

TA-FE900R: 100 W + 100 W (4 ohms at 1 kHz)  
70 W + 70 W (8 ohms at 1 kHz)  
TA-FE700R: 90 W + 90 W (4 ohms at 1 kHz)  
60 W + 60 W (8 ohms at 1 kHz)

##### Total harmonic distortion

Less than 0.008% (at 10 W output)

##### Frequency response

PHONO (20 Hz - 20 kHz): RIAA equalization curve  
 $\pm 0.5$  dB  
TUNER, CD, AUX  
TAPE1/DAT, TAPE2/MD  
7 Hz - 100 kHz  $\pm 0$ , -3 dB

##### S/N (network A)

PHONO  
94 dB  
TUNER, CD, AUX  
TAPE1/DAT, TAPE2/MD: 105 dB

##### Output voltage / impedance

REC OUT  
150 mV, 1 kilohm  
PHONES  
10 mW (at 8 ohms)

##### Speakers impedance

4 - 16 ohms, 8 - 16 ohms (SPEAKERS A+B)

##### Damping factor

100 (8 ohms, 1 kHz)

#### General

##### System

Power amplifier: Pure-complementary SEPP OCL  
power amplifier with all stages directly coupled  
Preamplifier: Low-noise, equalizer amplifier

##### Power requirements

220 - 230 V AC, 50/60 Hz

##### Power consumption

TA-FE900R: 220 W  
TA-FE700R: 200 W

##### Dimensions (approx.) (w/h/d)

430 x 135 x 365 mm  
incl. projecting parts and controls

##### Mass (approx.)

TA-FE900R: 7.0 kg  
TA-FE700R: 6.8 kg

#### Supplied accessories

Remote commander (remote) (1)  
RM-S316  
Sony batteries SUM-3 (NS) (2)



Design and specifications are subject to change without notice.

INTEGRATED STEREO AMPLIFIER  
**SONY®**

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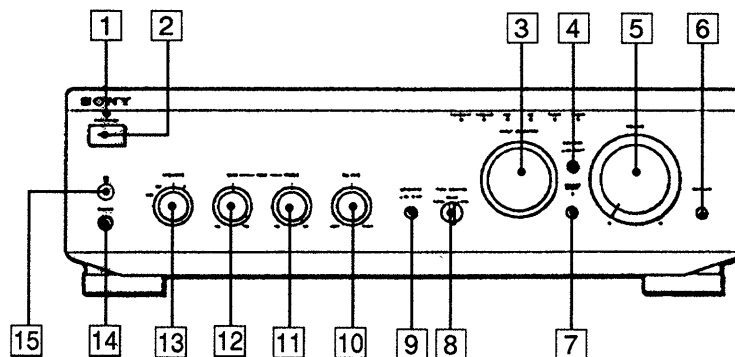
### SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

## SECTION 1 GENERAL

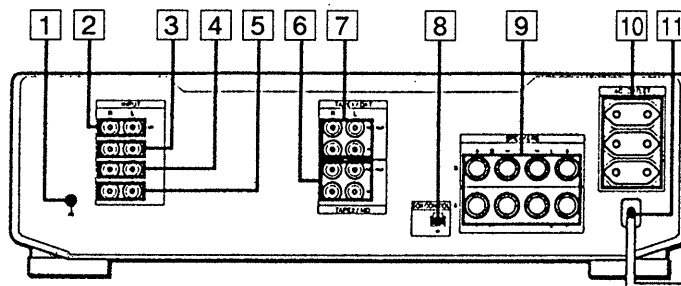
### IDENTIFYING THE PARTS AND CONTROLS

#### Front Panel



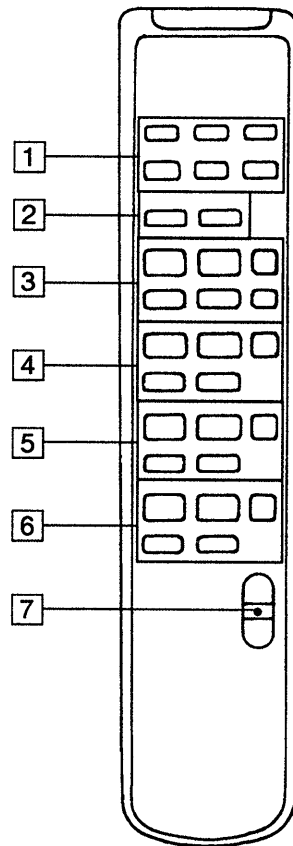
- |                                      |                          |
|--------------------------------------|--------------------------|
| 1 PROTECTION indicator               | 9 LOUDNESS switch        |
| 2 POWER switch                       | 10 BALANCE control       |
| 3 INPUT SELECTOR and indicators      | 11 TREBLE control        |
| 4 SUBSONIC switch                    | 12 BASS control          |
| 5 VOLUME control                     | 13 SPEAKERS switch       |
| 6 EON LINK switch and indicator      | 14 PHONES jack           |
| 7 SOURCE DIRECT switch and indicator | 15 Remote control sensor |
| 8 TAPE MONITOR switch                |                          |

#### Rear Panel



- |            |                  |
|------------|------------------|
| 1 (earth)  | 7 TAPE1/DAT      |
| 2 AUX      | 8 EON CONTROL IN |
| 3 CD       | 9 SPEAKER A/B    |
| 4 TUNER    | 10 AC OUTLET     |
| 5 PHONO    | 11 Mains lead    |
| 6 TAPE2/MD |                  |

## Remote (RM-S316)



- 1 FUNCTION buttons
- 2 PRESET +, - buttons
- 3 CD control buttons
- 4 MD control buttons
- 5 TAPE DECK A control buttons
- 6 TAPE DECK B control buttons
- 7 VOL +, - buttons



## SECTION 2 ELECTRICAL ADJUSTMENTS

### Note :

1. DC BIAS adjustments should be made 30 seconds after the POWER switch is turned on (POWER ON).
2. After replacing the power transistors, DC BIAS adjustments should be made.

### DC Bias Adjustment (with no signal input)

#### Setting :

Volume ... minimum

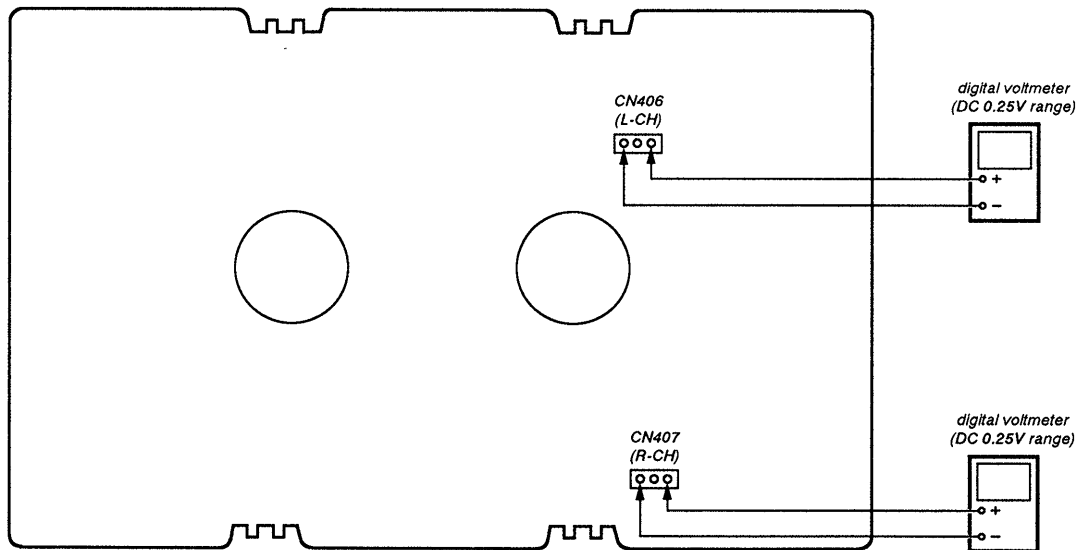
#### Procedure :

Adjust RV301 (L-ch) and RV351 (R-ch) so that the voltages across CN406 and CN407 become within the adjustment values.

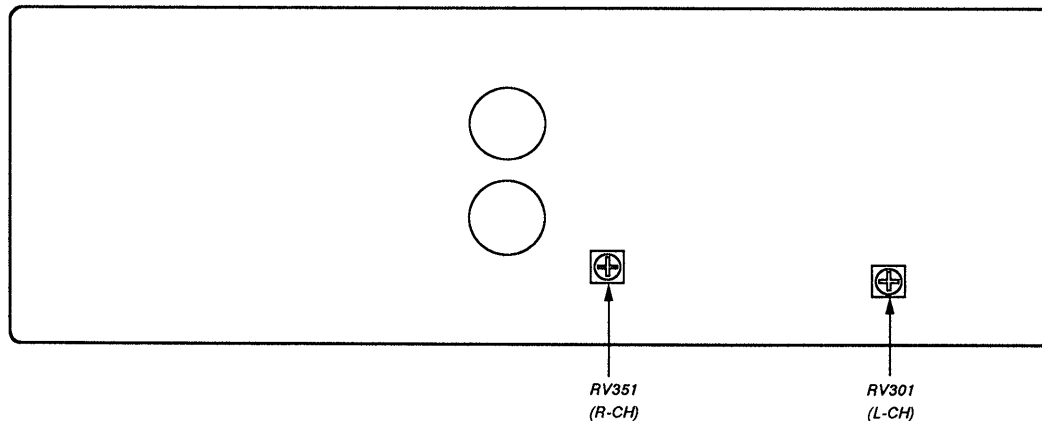
**Adjustment Value** :  $10\text{mV} \pm 2\text{mV}$

#### Adjustment Location :

**[MAIN (B) BOARD]** — Component side —



**[MAIN (A) BOARD]** — Component side —



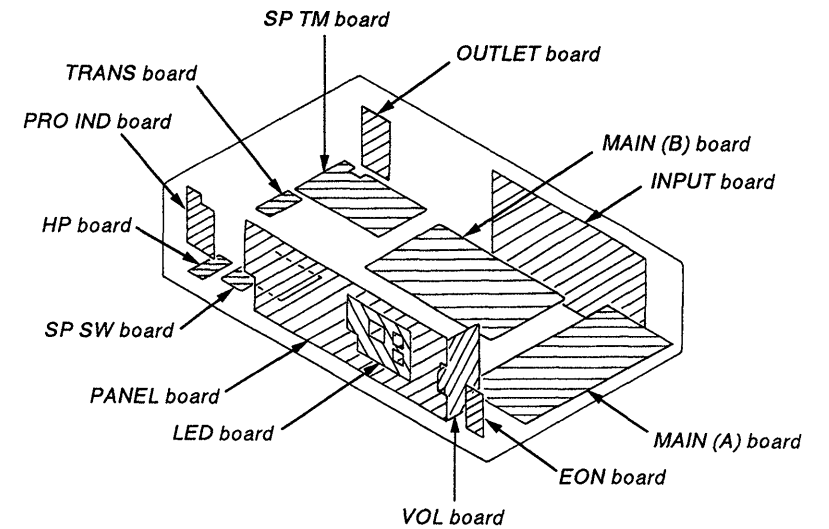
### SECTION 3 EXPLANATION OF IC TERMINALS

#### IC902 TMP47C103N-JP47

Pin No.	Pin name	I/O	Description
1	XOUT	—	System clock. (4MHz)
2	XIN	—	System clock. (4MHz)
3	RESET	I	Reset signal input terminal.
4	PMD	—	Not used. (Ground connection)
5	VOL +	O	Volume motor control terminal.
6	VOL —	O	Volume motor control terminal.
7	SW0	I	Relative position detection signal of rotary switch.
8	SW1	I	Relative position detection signal of rotary switch.
9	SW2	I	Relative position detection signal of rotary switch.
10	EON	I	EON signal input terminal.
11	PHONO	O	Function LED drive signal.
12	TUENR	O	Function LED drive signal.
13	CD	O	Function LED drive signal.
14	GND	—	Ground.
15	AUX	O	Function LED drive signal.
16	MD/DAT	O	Function LED drive signal.
17	TAPE	O	Function LED drive signal.
18	MON	—	Not used. (Ground connection)
19	PRY	I	EON control signal input.
20	PKY	—	Not used. (Ground connection)
21	MOI	—	Not used. (Ground connection)
22	SIRCS	I	SIRCS signal input terminal.
23	MUTE	—	Not used. (Ground connection)
24	SCE	—	Not used. (Ground connection)
25	SDT	—	Not used. (Ground connection)
26	SCK	—	Not used. (Ground connection)
27	STOP	I	Power ON/OFF input.
28	+3V	—	Power supply (+3V) terminal.

### SECTION 4 DIAGRAMS

#### 4-1. CIRCUIT BOARDS LOCATION



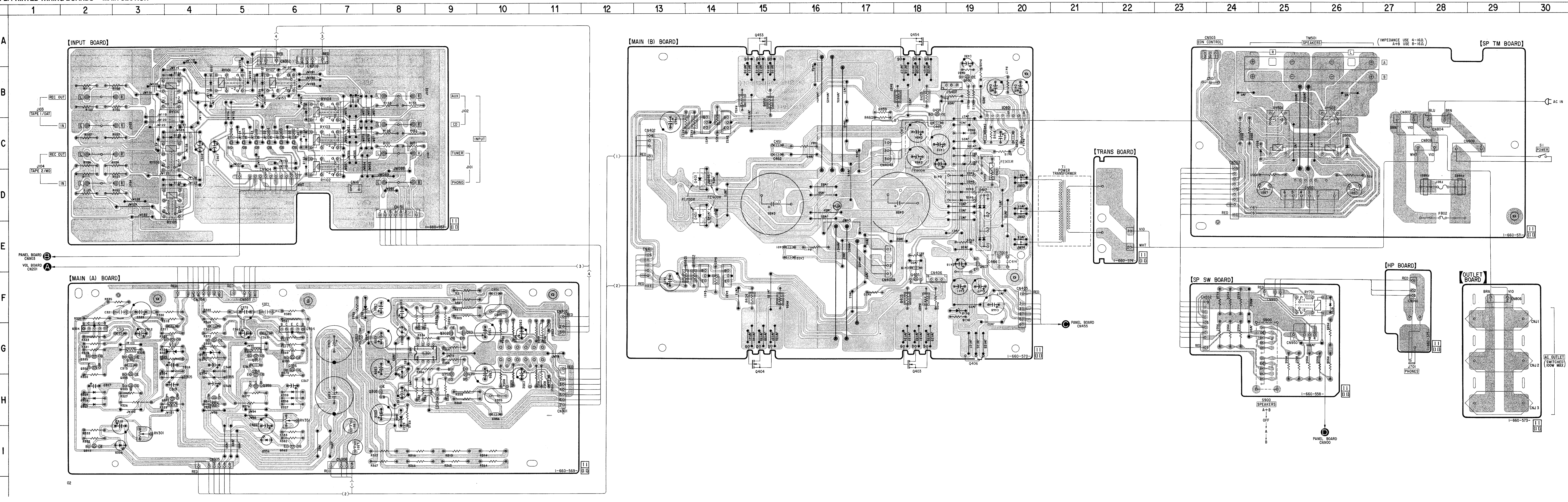
4-2. PRINTED WIRING BOARDS - MAIN SECTION

• SEMICONDUCTOR LOCATION

Ref. No.	Location	Ref. No.	Location
D101	B-4	Q101	C-5
D102	C-6	Q102	C-6
D103	C-6	Q103	C-6
D104	B-6	Q104	C-5
D105	D-4	Q105	C-5
D106	B-4	Q106	C-5
D107	B-5	Q301	G-9
D108	C-4	Q302	G-9
D301	G-8	Q303	H-8
D302	H-8	Q304	G-2
D303	G-4	Q305	G-2
D304	G-4	Q306	G-2
D305	H-4	Q307	G-3
D306	I-3	Q308	H-3
D307	H-2	Q309	H-3
D308	H-2	Q310	H-4
D309	H-2	Q311	G-4
D351	G-8	Q312	I-2
D352	F-7	Q351	G-9
D353	G-4	Q352	G-9
D354	G-4	Q353	G-7
D355	H-5	Q354	G-6
D356	I-5	Q355	G-6
D357	H-6	Q356	G-6
D358	H-6	Q357	G-5
D359	H-6	Q358	G-5
D401	D-14	Q359	H-5
D403	D-19	Q360	H-4
D404	D-19	Q361	G-4
D405	D-19	Q362	I-6
D406	D-19	Q401	F-14
D409	C-19	Q402	F-14
D410	C-19	Q403	G-18
D411	C-19	Q404	G-15
D412	D-19	Q405	F-18
D413	F-19	Q406	G-19
D451	D-14	Q407	E-19
D501	C-25	Q430	B-19
D502	C-26	Q451	C-14
D701	F-26	Q452	C-14
D917	C-6	Q453	A-15
		Q454	A-18
		Q455	B-18
IC301	G-8		
IC401	B-20		

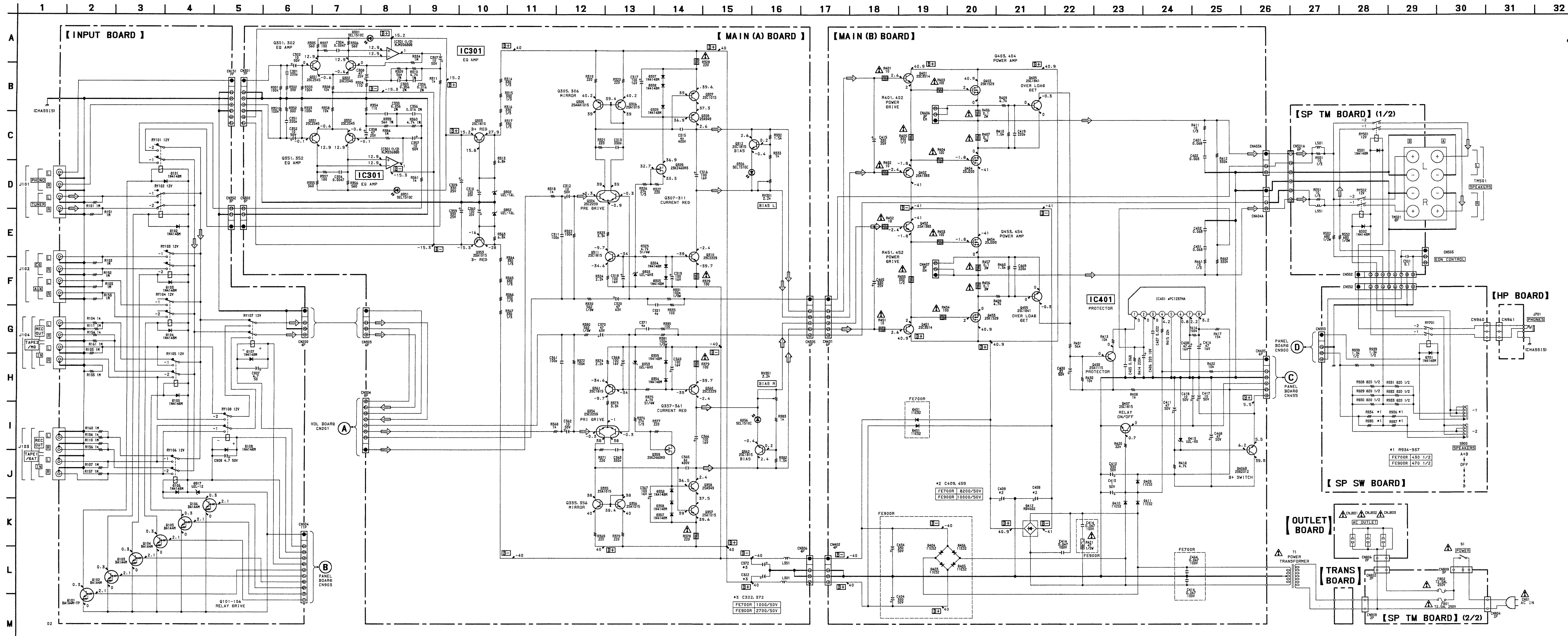
Note:

- — : parts extracted from the component side.
- ▨ : Pattern on the side which is seen.

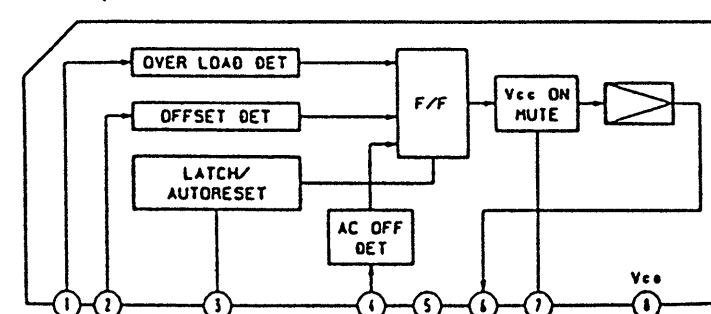




4-3. SCHEMATIC DIAGRAM - MAIN SECTION -



• IC BLOCK DIAGRAM - MAIN SECTION -  
IC401  $\mu$ PC1237HA



- Note :
- All capacitors are in  $\mu$  F unless otherwise noted. pF:  $\mu$   $\mu$  F 50WV or less are not indicated except for electrolytics and tantalums.
  - All resistors are in  $\Omega$  and  $\frac{1}{4}$ W or less unless otherwise specified.
  - $\square$  : nonflammable resistor.
  - $\square$  : fusible resistor.
- Note : The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.
- B+ : B+ Line
  - B- : B- Line
  - $\square$  : adjustment for repair.
  - Voltage is dc with respect to ground under no-signal conditions.
  - Voltages are taken with a VOM ( Input impedance 10M  $\Omega$  ). Voltage variations may be noted due to normal production tolerances.
  - Signal path.

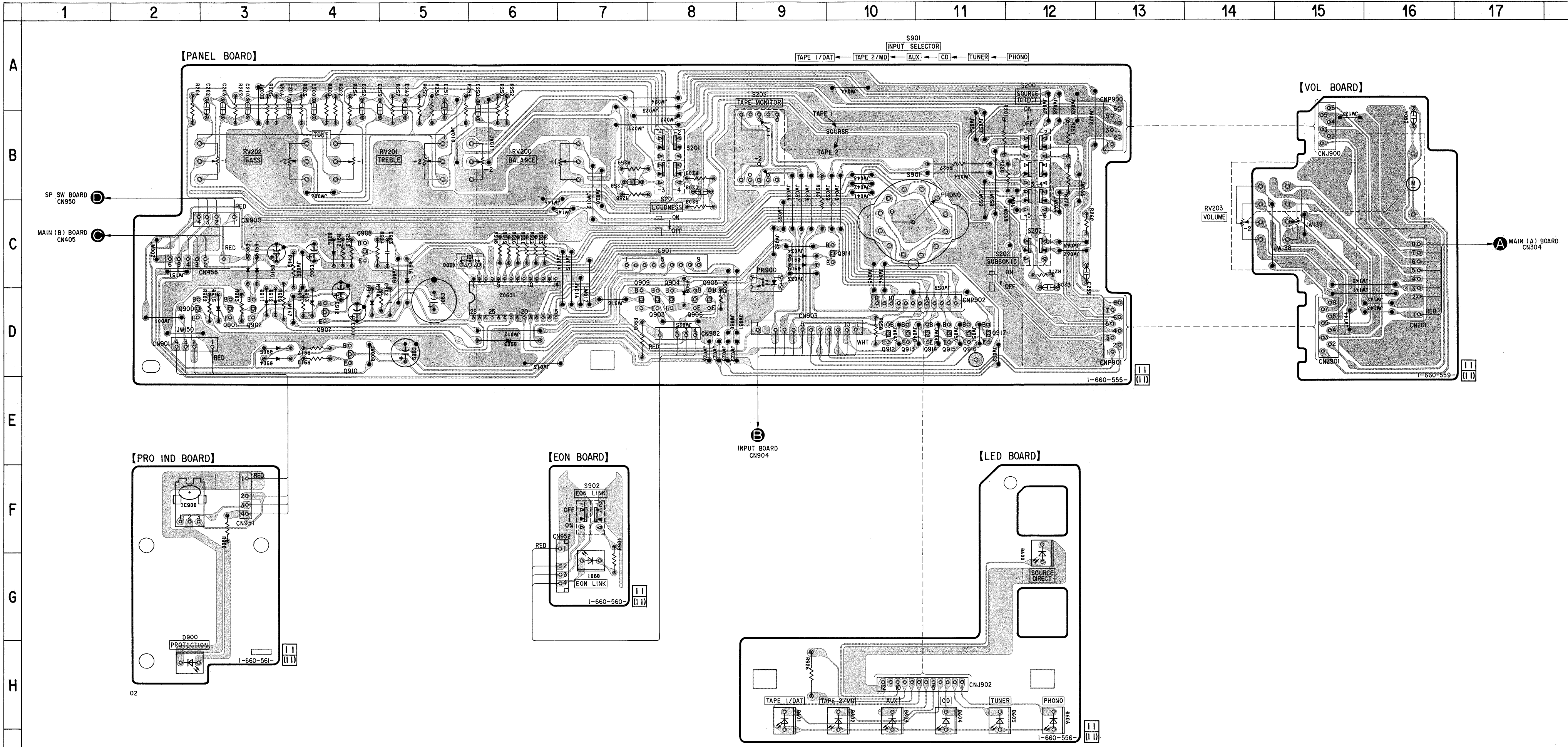
● SEMICONDUCTOR LOCATION

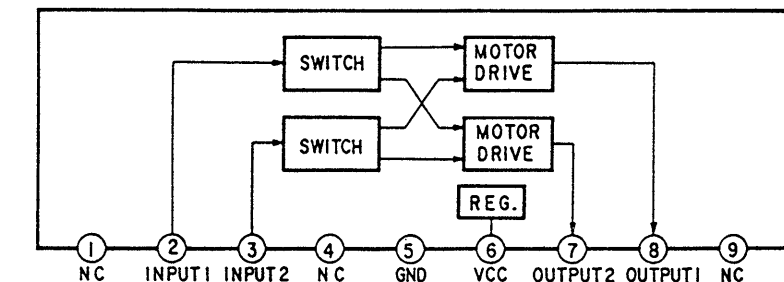
Ref. No.	Location
D600	G-12
D601	H-9
D602	H-10
D603	H-10
D604	H-11
D605	H-11
D606	H-12
D900	H-2
D901	G-7
D902	C-3
D903	D-6
D904	D-3
D905	D-3
D906	C-4
D908	D-8
D909	C-9
D910	C-9
D911	D-3
D912	D-3
D913	D-4
D914	D-4
D915	D-3
D916	C-5
D919	C-3
IC900	F-2
IC901	C-8
IC902	D-6
Q900	D-2
Q901	D-3
Q902	D-3
Q903	D-8
Q904	D-8
Q905	D-8
Q906	D-8
Q907	D-4
Q908	C-4
Q909	D-7
Q910	D-4
Q911	C-10
Q912	D-10
Q913	D-10
Q914	D-11
Q915	D-11
Q916	D-11
Q917	D-11

Note:

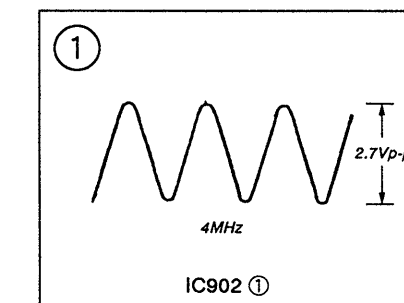
- : parts extracted from the component side.
- ▨ : Pattern on the side which is seen.

4-4. PRINTED WIRING BOARDS – PANEL SECTION





- **WAVEFORM**



**Note :**

- All capacitors are in  $\mu F$  unless otherwise noted. pF:  $\mu F$  50VW or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $\frac{1}{4}W$  or less unless otherwise specified.
- $\Delta$  : internal component.
- **B+** : B+ Line
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
- Voltages are taken with a VOM ( Input impedance 10M  $\Omega$  ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.



## SECTION 5 EXPLODED VIEWS

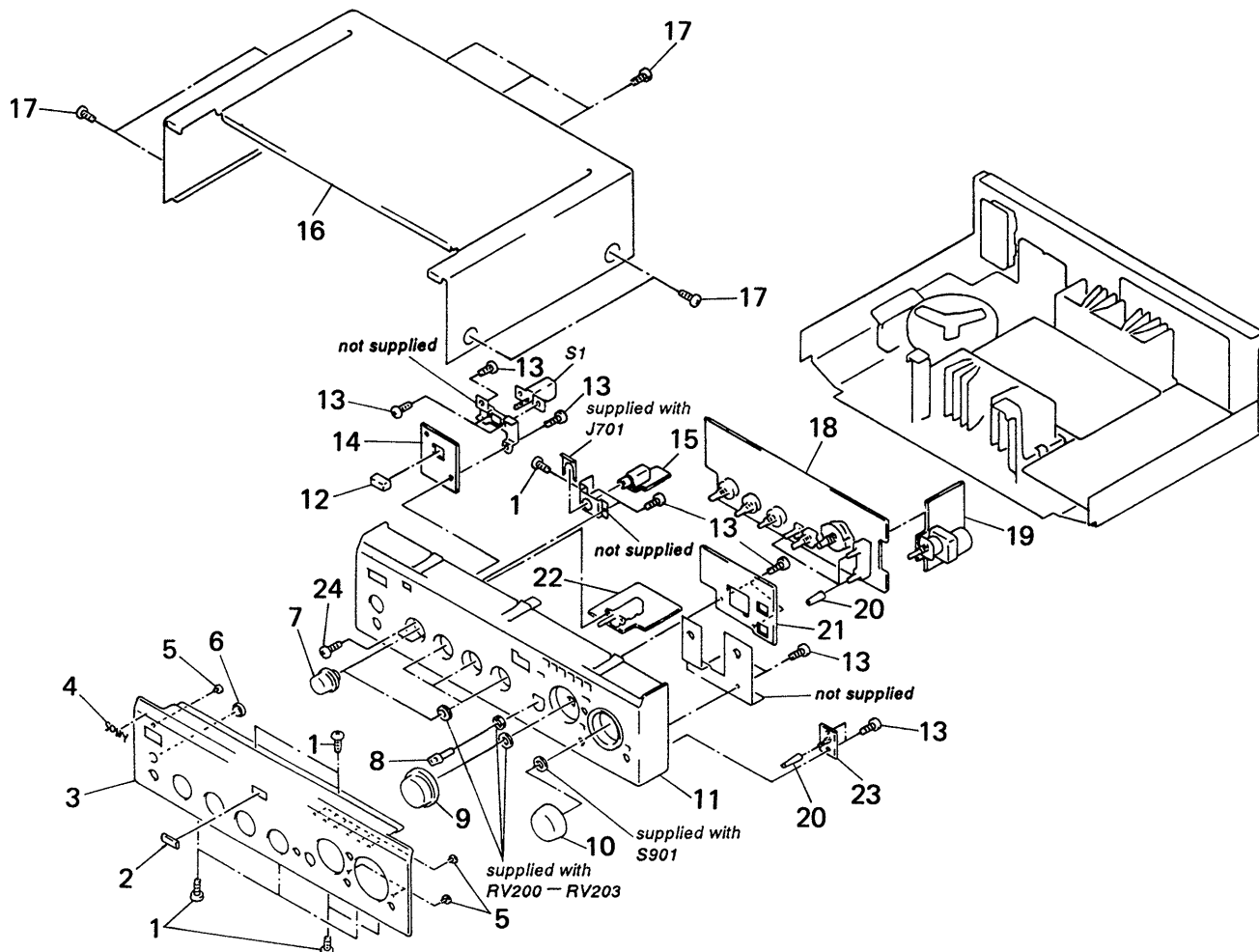
### NOTE :

- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

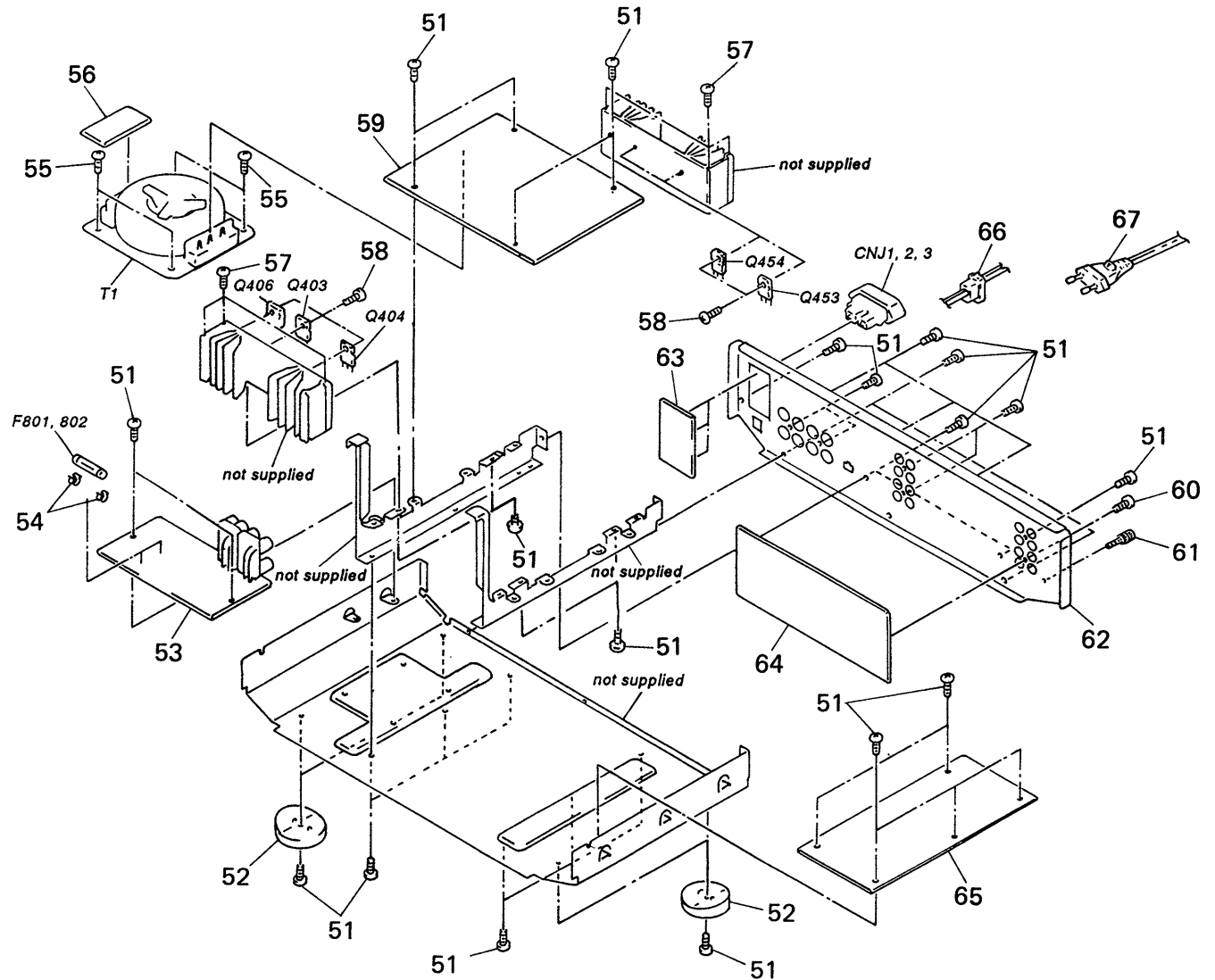
The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

### 5-1. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	4-967-961-01	SCREW (3X8)		* 14	1-660-561-11	PRO IND BOARD	
2	4-965-651-01	EMBLEM (MOS)		* 15	1-662-375-11	HP BOARD	
3	4-980-766-01	PANEL, FRONT (FE900R)		16	4-979-945-41	CASE (412032) (FE700R)	
3	4-980-766-11	PANEL, FRONT (FE700R)		16	4-983-899-11	CASE (FE900R)	
4	4-979-587-01	EMBLEM, SONY		17	3-704-366-01	SCREW (CASE) (M3X8)	
5	4-980-775-01	LENS, LED		* 18	A-4389-812-A	PANEL BOARD, COMPLETE	
6	4-980-776-01	WINDOW, REMOTE CONTROL		* 19	1-660-559-11	VOL BOARD	
7	4-980-204-01	KNOB (DIA. 24)		20	4-980-773-01	BUTTON (DIA. 6)	
8	4-980-774-01	KNOB (DIA. 11)		* 21	1-660-556-11	LED BOARD	
9	4-980-771-01	KNOB (DIA. 47)		* 22	1-660-558-11	SP SW BOARD	
10	X-4946-920-1	KNOB (VOL) ASSY		* 23	1-660-560-11	EON BOARD	
11	X-4946-916-1	PANEL ASSY, BASE		24	7-682-548-04	SCREW +BVTT 3X8 (S)	
12	4-980-199-01	BUTTON (POWER)		$\Delta$ S1	1-554-920-11	SWITCH, PUSH (AC POWER) (1 KEY) (POWER)	
13	4-951-620-01	SCREW (2.6X8), +BVTP					

## 5-2. CHASSIS SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	4-967-961-01	SCREW (3X8)		* 65	A-4389-802-A	MAIN (A) BOARD, COMPLETE (FE700R)	
52	X-4947-025-1	FOOT ASSY		* 65	A-4389-806-A	MAIN (A) BOARD, COMPLETE (FE900R)	
* 53	1-660-571-11	SP TM BOARD		* 66	3-703-244-00	BUSHING (2104), CORD	
54	1-533-233-11	HOLDER, FUSE		△ 67	1-777-185-11	CORD, POWER	
55	4-967-960-01	SCREW (4X8)		△ CNJ1	1-526-794-11	OUTLET, AC (AC OUTLET)	
* 56	1-660-574-11	TRANS BOARD		△ CNJ2	1-526-794-11	OUTLET, AC (AC OUTLET)	
57	4-981-016-11	SCREW (H) (FE700R)		△ CNJ3	1-526-794-11	OUTLET, AC (AC OUTLET)	
57	4-981-016-21	SCREW (H) (FE900R)		△ F801	1-532-464-51	FUSE, TIME LUG(T2.5AL/250V)	
58	3-905-609-11	SCREW (TRANSISTOR)		△ F802	1-532-464-51	FUSE, TIME LUG(T2.5AL/250V)	
* 59	A-4389-803-A	MAIN (B) BOARD, COMPLETE (FE700R)		Q403	8-729-232-45	TRANSISTOR 2SK1529-Y	
* 59	A-4389-807-A	MAIN (B) BOARD, COMPLETE (FE900R)		Q404	8-729-232-46	TRANSISTOR 2SJ200-Y	
60	3-704-515-41	SCREW (BV/RING)		Q406	8-729-209-15	TRANSISTOR 2SD2012	
61	4-947-010-01	SCREW, FEEDER FIXED		Q453	8-729-232-45	TRANSISTOR 2SK1529-Y	
* 62	4-980-768-11	PANEL, BACK (FE700R)		Q454	8-729-232-46	TRANSISTOR 2SJ200-Y	
* 62	4-982-977-01	PANEL, BACK (FE900R)		△ T1	1-429-490-11	TRANSFORMER, POWER (FE900R)	
* 63	1-660-573-11	OUTLET BOARD		△ T1	1-429-491-11	TRANSFORMER, POWER (FE700R)	
* 64	1-660-557-11	INPUT BOARD					

SECTION 6  
ELECTRICAL PARTS LIST

## NOTE :

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS  
All resistors are in ohms  
METAL : Metal-film resistor  
METAL OXIDE : Metal oxide-film resistor  
F : nonflammable
- Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

## ● SEMICONDUCTORS

In each case, u :  $\mu$ , for example :uA.... :  $\mu$  A...., uPA.... :  $\mu$  PA....uPB.... :  $\mu$  PB...., uPC.... :  $\mu$  PC....uPD.... :  $\mu$  PD....

## ● CAPACITORS

uF :  $\mu$  F

## ● COILS

uH :  $\mu$  H

## ● Abbreviation

G : German

The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	1-660-560-11	EON BOARD *****		CN904	1-691-773-11	PLUG (MICRO CONNECTOR) 11P	
		< CONNECTOR >				< DIODE >	
CN952	1-691-766-11	PLUG (MICRO CONNECTOR) 4P		D101	8-719-987-63	DIODE 1N4148M	
		< DIODE >		D102	8-719-987-63	DIODE 1N4148M	
D901	8-719-313-72	LED SEL3810A-CD (EON LINK)		D103	8-719-987-63	DIODE 1N4148M	
		< RESISTOR >		D104	8-719-987-63	DIODE 1N4148M	
R901	1-249-393-11	CARBON 10 5% 1/4W		D105	8-719-987-63	DIODE 1N4148M	
		< SWITCH >		D106	8-719-987-63	DIODE 1N4148M	
S902	1-571-112-21	SWITCH, PUSH (1 KEY) (EON LINK)		D107	8-719-987-63	DIODE 1N4148M	
*****				D108	8-719-987-63	DIODE 1N4148M	
*	1-662-375-11	HP BOARD *****		D917	8-719-001-76	DIODE UZL-12M3	
		< CONNECTOR >				< JACK >	
CN961	1-691-765-11	PLUG (MICRO CONNECTOR) 3P		* J101	1-573-142-11	JACK, PIN 4P (TUNER/PHONE)	
		< JACK >		* J102	1-573-142-21	JACK, PIN 4P (AUX, CD)	
J701	1-750-735-11	JACK (LARGE TYPE)(PHONES)		* J103	1-573-142-21	JACK, PIN 4P (TAPE 1/DAT)	
*****				* J104	1-573-142-21	JACK, PIN 4P (TAPE 2/MD)	
*	1-660-557-11	INPUT BOARD *****				< TRANSISTOR >	
		< CAPACITOR >		Q101	8-729-900-80	TRANSISTOR DTC114ES	
C907	1-126-963-11	ELECT 4.7uF 20% 50V		Q102	8-729-900-80	TRANSISTOR DTC114ES	
C908	1-126-963-11	ELECT 4.7uF 20% 50V		Q103	8-729-900-80	TRANSISTOR DTC114ES	
		< CONNECTOR >		Q104	8-729-900-80	TRANSISTOR DTC114ES	
CN16	1-564-320-00	PIN, CONNECTOR (B2P-VH) 2P		Q105	8-729-900-80	TRANSISTOR DTC114ES	
CN200	1-691-766-11	PLUG (MICRO CONNECTOR) 4P		Q106	8-729-900-80	TRANSISTOR DTC114ES	
						< RESISTOR >	
				R101	1-249-995-11	CARBON 1M 5% 1/4W	
				R102	1-249-995-11	CARBON 1M 5% 1/4W	
				R103	1-249-995-11	CARBON 1M 5% 1/4W	
				R104	1-247-713-11	CARBON 1K 5% 1/4W	
				R105	1-249-995-11	CARBON 1M 5% 1/4W	
				R106	1-247-713-11	CARBON 1K 5% 1/4W	
				R107	1-249-995-11	CARBON 1M 5% 1/4W	
				R110	1-249-995-11	CARBON 1M 5% 1/4W	
				R111	1-249-995-11	CARBON 1M 5% 1/4W	

Ref. No.	Part No.	Description			Remark
R151	1-249-995-11	CARBON	1M	5%	1/4W
R152	1-249-995-11	CARBON	1M	5%	1/4W
R153	1-249-995-11	CARBON	1M	5%	1/4W
R154	1-247-713-11	CARBON	1K	5%	1/4W
R155	1-249-995-11	CARBON	1M	5%	1/4W
R156	1-247-713-11	CARBON	1K	5%	1/4W
R157	1-249-995-11	CARBON	1M	5%	1/4W
R160	1-249-995-11	CARBON	1M	5%	1/4W
R161	1-249-995-11	CARBON	1M	5%	1/4W

< RELAY >

RY101	1-515-614-11	RELAY
RY102	1-515-614-11	RELAY
RY103	1-515-614-11	RELAY
RY104	1-515-614-11	RELAY
RY105	1-515-614-11	RELAY

RY106	1-515-614-11	RELAY
RY107	1-515-614-11	RELAY
RY108	1-515-614-11	RELAY

\*\*\*\*\*

\* 1-660-556-11 LED BOARD  
\*\*\*\*\*

< CONNECTOR >

CNJ902 1-766-796-11 CONNECTOR, BOARD TO BOARD 12P

< DIODE >

D600	8-719-313-72	LED SEL3810A-CD (SOURCE DIRECT)
D601	8-719-313-72	LED SEL3810A-CD (TAPE 1/DAT)
D602	8-719-313-72	LED SEL3810A-CD (TAPE 2/MD)
D603	8-719-313-72	LED SEL3810A-CD (AUX)
D604	8-719-313-72	LED SEL3810A-CD (CD)

D605	8-719-313-72	LED SEL3810A-CD (TUNER)
D606	8-719-313-72	LED SEL3810A-CD (PHONO)

< RESISTOR >

R926 1-247-751-11 CARBON 820 5% 1/2W

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\* A-4389-802-A MAIN (A) BOARD, COMPLETE (FE700R)

\* A-4389-806-A MAIN (A) BOARD, COMPLETE (FE900R)

\*\*\*\*\*

< CAPACITOR >

C301	1-102-978-00	CERAMIC	220PF	5%	50V
C302	1-126-059-11	ELECT	10uF	20%	50V
C304	1-106-359-00	MYLAR	4700PF	5%	200V
C305	1-136-162-00	FILM	0.056uF	5%	50V
					(FE700R)
C305	1-130-341-00	FILM	0.056uF	3%	100V
					(FE900R)

Ref. No.	Part No.	Description			Remark
C306	1-137-471-11	FILM	0.016uF	5%	50V
					(FE700R)
C306	1-130-971-00	FILM	0.016uF	3%	100V
					(FE900R)
C307	1-126-059-11	ELECT	10uF	20%	50V
C308	1-126-022-11	ELECT	47uF	20%	25V
C309	1-126-025-11	ELECT	330uF	20%	25V
C310	1-126-023-11	ELECT	100uF	20%	25V
C311	1-102-973-00	CERAMIC	100PF	5%	50V
C312	1-126-059-11	ELECT	10uF	20%	50V
C313	1-164-079-11	CERAMIC	330PF	10%	50V
					(FE700R)
C313	1-104-290-11	POLYSTYRENE	330PF	5%	50V
					(FE900R)

C315	1-102-230-00	CERAMIC	4PF	0.25PF	500V
C316	1-126-023-11	ELECT	100uF	20%	16V
C317	1-126-023-11	ELECT	100uF	20%	16V
C318	1-126-023-11	ELECT	100uF	20%	16V
C319	1-126-023-11	ELECT	100uF	20%	16V

C320	1-110-392-11	ELECT	47uF	20%	63V
C321	1-164-040-11	CERAMIC	4PF	0.25PF	50V
					(FE700R)
C321	1-113-496-11	POLYSTYRENE	4PF	10%	50V
					(FE900R)
C322	1-126-056-11	ELECT	1000uF	20%	50V
					(FE700R)
C322	1-109-871-11	ELECT	2700uF	20%	50V
					(FE900R)

C351	1-102-978-00	CERAMIC	220PF	5%	50V
C352	1-126-059-11	ELECT	10uF	20%	50V
C354	1-106-359-00	MYLAR	4700PF	5%	200V
C355	1-136-162-00	FILM	0.056uF	5%	50V
					(FE700R)
C355	1-130-341-00	FILM	0.056uF	3%	100V
					(FE900R)

C356	1-137-471-11	FILM	0.016uF	5%	50V
					(FE700R)
C356	1-130-971-00	FILM	0.016uF	3%	100V
					(FE900R)
C357	1-126-059-11	ELECT	10uF	20%	50V
C358	1-126-022-11	ELECT	47uF	20%	25V
C359	1-126-025-11	ELECT	330uF	20%	25V

C360	1-126-023-11	ELECT	100uF	20%	25V
C361	1-102-973-00	CERAMIC	100PF	5%	50V
C362	1-126-059-11	ELECT	10uF	20%	50V
C363	1-164-079-11	CERAMIC	330PF	10%	50V
					(FE700R)
C363	1-104-290-11	POLYSTYRENE	330PF	5%	50V
					(FE900R)

C365	1-102-230-00	CERAMIC	4PF	0.25PF	500V
C366	1-126-023-11	ELECT	100uF	20%	16V
C367	1-126-023-11	ELECT	100uF	20%	16V
C368	1-126-023-11	ELECT	100uF	20%	16V
C369	1-126-023-11	ELECT	100uF	20%	16V

# MAIN (A)

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C370	1-110-392-11	ELECT	47uF 20% 63V	Q311	8-729-281-54	TRANSISTOR 2SC1815-BL	
C371	1-164-040-11	CERAMIC	4PF 0.25PF 50V (FE700R)	Q312	8-729-281-54	TRANSISTOR 2SC1815-BL	
C371	1-113-496-11	POLYSTYRENE	4PF 10% 50V (FE900R)	Q351	8-729-354-52	TRANSISTOR 2SC2545	
C372	1-126-056-11	ELECT	1000uF 20% 50V (FE700R)	Q352	8-729-354-52	TRANSISTOR 2SC2545	
C372	1-109-871-11	ELECT	2700uF 20% 50V (FE900R)	Q353	8-729-201-53	TRANSISTOR 2SA1015-GR	
< CONNECTOR >				Q354	8-729-620-17	TRANSISTOR 2SC2259-FG	
CN301	1-691-769-11	PLUG (MICRO CONNECTOR) 7P		Q355	8-729-201-53	TRANSISTOR 2SA1015-GR	
CN302	1-691-765-11	PLUG (MICRO CONNECTOR) 3P		Q356	8-729-201-53	TRANSISTOR 2SA1015-GR	
< DIODE >				Q357	8-729-201-53	TRANSISTOR 2SA1015-GR	
D301	8-719-310-60	LED SEL1510C-C		Q358	8-729-021-74	TRANSISTOR 2SA949-OY-TPE6	
D302	8-719-933-88	DIODE HZS16-2L		Q359	8-729-202-67	TRANSISTOR 2SK246-GR3	
D303	8-719-933-41	DIODE HZS6C3L		Q360	8-729-021-73	TRANSISTOR 2SC2229-OY-TPE6	
D304	8-719-987-63	DIODE 1N4148M		Q361	8-729-281-54	TRANSISTOR 2SC1815-BL	
D305	8-719-987-63	DIODE 1N4148M		Q362	8-729-281-54	TRANSISTOR 2SC1815-BL	
D306	8-719-310-60	LED SEL1510C-C		< RESISTOR >			
D307	8-719-987-63	DIODE 1N4148M		R301	1-259-215-21	CARBON 100K 5%	1/4W
D308	8-719-987-63	DIODE 1N4148M		R302	1-249-911-11	CARBON 330 5%	1/4W
D309	8-719-987-63	DIODE 1N4148M		R303	1-259-215-21	CARBON 100K 5%	1/4W
D351	8-719-310-60	LED SEL1510C-C		R304	1-249-900-11	CARBON 110 1%	1/4W
D352	8-719-933-88	DIODE HZS16-2L		R305	1-259-161-21	CARBON 560 5%	1/4W
D353	8-719-933-41	DIODE HZS6C3L		R306	1-259-161-21	CARBON 560 5%	1/4W
D354	8-719-987-63	DIODE 1N4148M		R307	1-259-143-21	CARBON 100 5%	1/4W
D355	8-719-987-63	DIODE 1N4148M		R308	1-259-191-21	CARBON 10K 5%	1/4W
D356	8-719-310-60	LED SEL1510C-C		R309	1-249-844-11	CARBON 56K 1%	1/2W
D357	8-719-987-63	DIODE 1N4148M		R310	1-249-818-11	CARBON 4.7K 1%	1/2W
D358	8-719-987-63	DIODE 1N4148M		R311	1-259-167-21	CARBON 1K 5%	1/4W
D359	8-719-987-63	DIODE 1N4148M		R313	1-249-943-11	CARBON 6.8K 5%	1/4W
< IC >				R314	1-249-198-11	CARBON 330 5%	1/3W
IC301	8-759-701-25	IC NJM2068D-D		R315	1-249-198-11	CARBON 330 5%	1/3W
< COIL >				R316	1-249-198-11	CARBON 330 5%	1/3W
L301	1-411-925-11	COIL, AIR-CORE		R317	1-249-198-11	CARBON 330 5%	1/3W
L351	1-411-925-11	COIL, AIR-CORE		R318	1-259-167-21	CARBON 1K 5%	1/4W
< TRANSISTOR >				R319	1-259-151-21	CARBON 220 5%	1/4W
Q301	8-729-354-52	TRANSISTOR 2SC2545		R320	1-259-151-21	CARBON 220 5%	1/4W
Q302	8-729-354-52	TRANSISTOR 2SC2545		R321	1-259-151-21	CARBON 220 5%	1/4W
Q303	8-729-281-54	TRANSISTOR 2SC1815-BL		R322	1-259-215-21	CARBON 100K 5%	1/4W
Q304	8-729-620-17	TRANSISTOR 2SC2259-FG		R323	1-259-179-21	CARBON 3.3K 5%	1/4W
Q305	8-729-201-53	TRANSISTOR 2SA1015-GR		R324	1-249-931-11	CARBON 2.2K 5%	1/4W
Q306	8-729-201-53	TRANSISTOR 2SA1015-GR		R325	1-259-444-11	CARBON 4.7K 5%	1/6W
Q307	8-729-201-53	TRANSISTOR 2SA1015-GR		R326	1-249-490-11	CARBON 27K 5%	1/3W
Q308	8-729-021-74	TRANSISTOR 2SA949-OY-TPE6		R327	1-259-151-21	CARBON 220 5%	1/4W
Q309	8-729-202-67	TRANSISTOR 2SK246-GR3		△ R328	1-259-151-21	CARBON 220 5%	1/4W F
Q310	8-729-021-73	TRANSISTOR 2SC2229-OY-TPE6		△ R329	1-249-899-11	CARBON 100 5%	1/4W F
				R330	1-247-749-11	CARBON 560 5%	1/2W
				R331	1-249-496-11	CARBON 100K 5%	1/3W
				R332	1-259-171-21	CARBON 1.5K 5%	1/4W
				R333	1-259-167-21	CARBON 1K 5%	1/4W
				R334	1-124-995-11	CARBON 1M 5%	1/4W
				R335	1-259-143-21	CARBON 100 5%	1/4W
				R351	1-259-215-21	CARBON 100K 5%	1/4W
				R352	1-249-911-11	CARBON 330 5%	1/4W

The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

**MAIN (A)**
**MAIN (B)**

Ref. No.	Part No.	Description			Remark
R353	1-259-215-21	CARBON	100K	5%	1/4W
R354	1-249-900-11	CARBON	110	1%	1/4W
R355	1-259-161-21	CARBON	560	5%	1/4W
R356	1-259-161-21	CARBON	560	5%	1/4W
R357	1-259-143-21	CARBON	100	5%	1/4W
R358	1-259-191-21	CARBON	10K	5%	1/4W
R359	1-249-844-11	CARBON	56K	1%	1/2W
R360	1-249-818-11	CARBON	4.7K	1%	1/2W
R361	1-259-167-21	CARBON	1K	5%	1/4W
R363	1-249-943-11	CARBON	6.8K	5%	1/4W
R364	1-249-198-11	CARBON	330	5%	1/3W
R365	1-249-198-11	CARBON	330	5%	1/3W
R366	1-249-198-11	CARBON	330	5%	1/3W
R367	1-249-198-11	CARBON	330	5%	1/3W
R368	1-259-167-21	CARBON	1K	5%	1/4W
R369	1-259-151-21	CARBON	220	5%	1/4W
R370	1-259-151-21	CARBON	220	5%	1/4W
R371	1-259-151-21	CARBON	220	5%	1/4W
R372	1-259-215-21	CARBON	100K	5%	1/4W
R373	1-259-179-21	CARBON	3.3K	5%	1/4W
R374	1-249-931-11	CARBON	2.2K	5%	1/4W
R375	1-259-444-11	CARBON	4.7K	5%	1/6W
R376	1-249-490-11	CARBON	27K	5%	1/3W
R377	1-259-151-21	CARBON	220	5%	1/4W
△ R378	1-259-151-21	CARBON	220	5%	1/4W F
△ R379	1-249-899-11	CARBON	100	5%	1/4W F
R380	1-247-749-11	CARBON	560	5%	1/2W
R381	1-249-496-11	CARBON	100K	5%	1/3W
R382	1-259-171-21	CARBON	1.5K	5%	1/4W
R383	1-259-167-21	CARBON	1K	5%	1/4W
R384	1-124-995-11	CARBON	1M	5%	1/4W
R385	1-259-143-21	CARBON	100	5%	1/4W
< VARIABLE RESISTOR >					
RV301	1-241-762-11	RES, ADJ, CARBON 2.2K (BIAS L)			
RV351	1-241-762-11	RES, ADJ, CARBON 2.2K (BIAS R)			
*****					
*	A-4389-803-A	MAIN (B) BOARD, COMPLETE (FE700R)			
*	A-4389-807-A	MAIN (B) BOARD, COMPLETE (FE900R)			
*****					
< CAPACITOR >					
C401	1-136-163-00	FILM	0.068uF	5%	50V
C402	1-136-163-00	FILM	0.068uF	5%	50V
C404	1-124-920-11	ELECT	330uF	20%	50V (FE900R)
C405	1-136-163-00	FILM	0.068uF	5%	50V
C406	1-126-923-11	ELECT	220uF	20%	10V
C407	1-136-157-00	FILM	0.022uF	5%	50V
C408	1-126-967-11	ELECT	47uF	20%	16V
C409	1-115-424-11	ELECT	10000uF	20%	50V (FE900R)

Ref. No.	Part No.	Description			Remark
C409	1-115-425-11	ELECT	8200uF	20%	50V (FE700R)
C411	1-126-967-11	ELECT	47uF	20%	50V
C412	1-126-970-11	ELECT	330uF	20%	50V
C413	1-124-903-11	ELECT	1uF	20%	50V
C414	1-137-420-11	MYLAR	0.047uF	5%	100V
C415	1-126-025-11	ELECT	330uF	20%	25V
C416	1-126-967-11	ELECT	47uF	20%	16V
C417	1-126-964-11	ELECT	10uF	20%	50V
C418	1-126-964-11	ELECT	10uF	20%	50V
C419	1-164-077-11	CERAMIC	220PF	10%	50V
C430	1-126-965-11	ELECT	22uF	20%	50V
C451	1-136-163-00	FILM	0.068uF	5%	50V
C452	1-136-163-00	FILM	0.068uF	5%	50V
C454	1-124-920-11	ELECT	330uF	20%	50V (FE900R)
C459	1-115-425-11	ELECT	8200uF	20%	50V (FE700R)
C459	1-115-424-11	ELECT	10000uF	20%	50V (FE900R)
C464	1-137-420-11	FILM	0.047uF	10%	100V (FE700R)
C465	1-126-025-11	ELECT	330uF	20%	25V
C468	1-126-967-11	ELECT	47uF	20%	50V
C469	1-164-077-11	CERAMIC	220PF	10%	50V
< CONNECTOR >					
CN401	1-691-768-11	PLUG (MICRO CONNECTOR) 6P			
CN402	1-691-766-11	PLUG (MICRO CONNECTOR) 4P			
CN405	1-691-768-11	PLUG (MICRO CONNECTOR) 6P			
CN406	1-564-506-11	PLUG, CONNECTOR 3P			
CN407	1-564-506-11	PLUG, CONNECTOR 3P			
* CN403A	1-564-241-11	PIN, CONNECTOR (B4P-VH) 4P			
* CN404A	1-564-104-00	PIN, CONNECTOR (B3P-VH) 3P			
< DIODE >					
D401	8-719-024-99	DIODE 11ES2-NTA2B (FE700R)			
D403	8-719-024-99	DIODE 11ES2-NTA2B (FE900R)			
D404	8-719-024-99	DIODE 11ES2-NTA2B (FE900R)			
D405	8-719-024-99	DIODE 11ES2-NTA2B (FE900R)			
D406	8-719-024-99	DIODE 11ES2-NTA2B (FE900R)			
D409	8-719-024-99	DIODE 11ES2-NTA2B			
D410	8-719-024-99	DIODE 11ES2-NTA2B			
D411	8-719-024-99	DIODE 11ES2-NTA2B			
D412	8-719-302-38	DIODE RBV-602-01			
D413	8-719-933-39	DIODE HZS6C1L			
D451	8-719-024-99	DIODE 11ES2-NTA2B (FE700R)			
< IC >					
IC401	8-759-111-68	IC uPC1237HA			

The components identified by mark △ or dotted line with mark △ are critical for safety.  
Replace only with part number specified.



MAIN (B)	OUTLET	PANEL
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Ref. No.	Part No.	Description	Remark			
< TRANSISTOR >						
Q401	8-729-104-18	TRANSISTOR 2SC3514-Q				
Q402	8-729-104-91	TRANSISTOR 2SA1383				
Q403	8-729-232-45	TRANSISTOR 2SK1529-Y				
Q404	8-729-232-46	TRANSISTOR 2SJ200-Y				
Q405	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA				
Q406	8-729-209-15	TRANSISTOR 2SD2012				
Q407	8-729-281-54	TRANSISTOR 2SC1815-BL				
Q430	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q451	8-729-104-18	TRANSISTOR 2SC3514-Q				
Q452	8-729-104-91	TRANSISTOR 2SA1383				
Q453	8-729-232-45	TRANSISTOR 2SK1529-Y				
Q454	8-729-232-46	TRANSISTOR 2SJ200-Y				
Q455	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA				
< RESISTOR >						
△ R401	1-249-393-11	CARBON 10	5%	1/4W	F	
△ R402	1-249-393-11	CARBON 10	5%	1/4W	F	
△ R403	1-249-405-11	CARBON 100	5%	1/4W	F	
△ R404	1-249-405-11	CARBON 100	5%	1/4W	F	
△ R405	1-247-745-11	CARBON 330	5%	1/2W	F	
△ R406	1-208-601-11	WIREWOUND 0.1	10%	2W	F	
△ R407	1-208-601-11	WIREWOUND 0.1	10%	2W	F	
R408	1-259-428-11	CARBON 1K	5%	1/6W		
R409	1-259-444-11	CARBON 4.7K	5%	1/6W		
R410	1-259-432-11	CARBON 1.5K	5%	1/6W		
R411	1-249-162-11	CARBON 10	5%	1/3W		
R412	1-259-488-11	CARBON 330K	5%	1/6W		
R413	1-259-452-11	CARBON 10K	5%	1/6W		
R414	1-259-484-11	CARBON 220K	5%	1/6W		
R415	1-259-460-11	CARBON 22K	5%	1/6W		
R416	1-259-480-11	CARBON 150K	5%	1/6W		
R417	1-259-456-11	CARBON 15K	5%	1/6W		
R418	1-259-444-11	CARBON 4.7K	5%	1/6W		
R420	1-259-460-11	CARBON 22K	5%	1/6W		
△ R421	1-212-974-91	FUSIBLE 47	5%	1/2W	F	(FE900R)
R430	1-259-452-11	CARBON 10K	5%	1/6W		
R431	1-259-470-11	CARBON 56K	5%	1/6W		
△ R451	1-249-393-11	CARBON 10	5%	1/4W	F	
△ R452	1-249-393-11	CARBON 10	5%	1/4W	F	
△ R453	1-249-405-11	CARBON 100	5%	1/4W	F	
△ R454	1-249-405-11	CARBON 100	5%	1/4W	F	
△ R455	1-247-745-11	CARBON 330	5%	1/2W	F	
△ R456	1-208-601-11	WIREWOUND 0.1	10%	2W	F	
△ R457	1-208-601-11	WIREWOUND 0.1	10%	2W	F	
R459	1-259-444-11	CARBON 4.7K	5%	1/6W		
R460	1-259-432-11	CARBON 1.5K	5%	1/6W		
R461	1-249-162-11	CARBON 10	5%	1/3W		
R462	1-259-488-11	CARBON 330K	5%	1/6W		

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Ref. No.	Part No.	Description	Remark			
*	1-660-573-11	OUTLET BOARD *****				
< JACK >						
△ CNJ1	1-526-794-11	OUTLET, AC (AC OUTLET)				
△ CNJ2	1-526-794-11	OUTLET, AC (AC OUTLET)				
△ CNJ3	1-526-794-11	OUTLET, AC (AC OUTLET)				
*****						
*	A-4389-812-A	PANEL BOARD, COMPLETE *****				
< CAPACITOR >						
C200	1-130-475-00	MYLAR	0.0022uF	5%	50V	
C201	1-136-153-00	FILM	0.01uF	5%	50V	
C202	1-136-155-00	FILM	0.015uF	5%	50V	
C203	1-136-165-00	FILM	0.1uF	5%	50V	
C208	1-130-471-00	MYLAR	0.001uF	5%	50V	
C209	1-136-171-00	FILM	0.33uF	5%	50V	
C210	1-136-165-00	FILM	0.1uF	5%	50V	
C250	1-130-475-00	MYLAR	0.0022uF	5%	50V	
C251	1-136-153-00	FILM	0.01uF	5%	50V	
C252	1-136-155-00	FILM	0.015uF	5%	50V	
C253	1-136-165-00	FILM	0.1uF	5%	50V	
C258	1-130-471-00	MYLAR	0.001uF	5%	50V	
C259	1-136-171-00	FILM	0.33uF	5%	50V	
C260	1-136-165-00	FILM	0.1uF	5%	50V	
C900	1-126-964-11	ELECT	10uF	20%	50V	
C901	1-126-916-11	ELECT	1000uF	20%	6.3V	
C902	1-164-159-11	CERAMIC	0.1uF		50V	
C903	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C906	1-126-964-11	ELECT	10uF	20%	50V	
C909	1-128-551-11	ELECT	22uF	20%	63V	
C910	1-126-933-11	ELECT	100uF	20%	10V	
C912	1-126-964-11	ELECT	10uF	20%	50V	
< CONNECTOR >						
CN455	1-691-768-11	PLUG (MICRO CONNECTOR) 6P				
CN900	1-691-766-11	PLUG (MICRO CONNECTOR) 4P				
CN901	1-691-766-21	PLUG (MICRO CONNECTOR) 4P				
CN902	1-691-766-11	PLUG (MICRO CONNECTOR) 4P				
* CN903	1-564-527-11	PLUG, CONNECTOR 12P				
* CNP900	1-568-318-21	PLUG, CONNECTOR 6P				
* CNP901	1-568-320-11	PLUG, CONNECTOR 8P				
CNP902	1-774-936-11	CONNECTOR, BOARD TO BOARD 12P				
< DIODE >						
D902	8-719-987-63	DIODE 1N4148M				
D903	8-719-024-99	DIODE 11ES2-NTA2B				
D904	8-719-987-63	DIODE 1N4148M				
D905	8-719-987-63	DIODE 1N4148M				
D906	8-719-987-63	DIODE 1N4148M				

The components identified by mark △ or dotted line with mark △ are critical for safety.  
Replace only with part number specified.

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
D908	8-719-987-63	DIODE	1N4148M			R251	1-259-446-11	CARBON	5.6K	5%	1/6W
D909	8-719-987-63	DIODE	1N4148M			R252	1-259-446-11	CARBON	5.6K	5%	1/6W
D910	8-719-987-63	DIODE	1N4148M								
D911	8-719-987-63	DIODE	1N4148M			R253	1-259-436-11	CARBON	2.2K	5%	1/6W
D912	8-719-987-63	DIODE	1N4148M			R254	1-259-464-11	CARBON	33K	5%	1/6W
						R255	1-259-446-11	CARBON	5.6K	5%	1/6W
D913	8-719-985-59	DIODE	HZS4CLL-TA			R256	1-259-500-11	CARBON	1M	5%	1/6W
D914	8-719-987-63	DIODE	1N4148M			R257	1-259-456-11	CARBON	15K	5%	1/6W
D915	8-719-987-63	DIODE	1N4148M								
D916	8-719-987-63	DIODE	1N4148M			R258	1-259-456-11	CARBON	15K	5%	1/6W
D919	8-719-987-63	DIODE	1N4148M			R259	1-259-500-11	CARBON	1M	5%	1/6W
		< IC >				R260	1-259-500-11	CARBON	1M	5%	1/6W
IC901	8-759-962-08	IC	BA6208			R270	1-259-464-11	CARBON	33K	5%	1/6W
IC902	8-759-392-41	IC	TMP47C103N-JP47			R419	1-249-429-11	CARBON	10K	5%	1/4W
		< PHOTO COUPLER >									
PH900	8-719-902-56	PHOTO COUPLER	PC817			R902	1-249-429-11	CARBON	10K	5%	1/4W
		< TRANSISTOR >				R903	1-249-429-11	CARBON	10K	5%	1/4W
						R905	1-249-429-11	CARBON	10K	5%	1/4W
Q900	8-729-620-05	TRANSISTOR	2SC2603-EF			R908	1-249-429-11	CARBON	10K	5%	1/4W
Q901	8-729-900-63	TRANSISTOR	DTA124ES			R909	1-249-429-11	CARBON	10K	5%	1/4W
Q902	8-729-900-63	TRANSISTOR	DTA124ES								
Q903	8-729-900-80	TRANSISTOR	DTC114ES			R910	1-249-400-11	CARBON	39	5%	1/4W
Q904	8-729-422-57	TRANSISTOR	UN4111			R911	1-249-411-11	CARBON	330	5%	1/4W
						R912	1-249-429-11	CARBON	10K	5%	1/4W
Q905	8-729-422-57	TRANSISTOR	UN4111			R913	1-249-425-11	CARBON	4.7K	5%	1/4W
Q906	8-729-422-57	TRANSISTOR	UN4111			R914	1-247-807-31	CARBON	100	5%	1/4W
Q907	8-729-119-78	TRANSISTOR	2SC403SP-51								
Q908	8-729-620-05	TRANSISTOR	2SC2603-EF			R916	1-247-751-11	CARBON	820	5%	1/2W
Q909	8-729-620-05	TRANSISTOR	2SC2603-EF			R917	1-249-433-11	CARBON	22K	5%	1/4W
						R918	1-249-423-11	CARBON	3.3K	5%	1/4W
Q910	8-729-201-53	TRANSISTOR	2SA1015-GR			R919	1-249-423-11	CARBON	3.3K	5%	1/4W
Q911	8-729-142-36	TRANSISTOR	BN1L3Z			R920	1-249-429-11	CARBON	10K	5%	1/4W
Q912	8-729-422-57	TRANSISTOR	UN4111								
Q913	8-729-422-57	TRANSISTOR	UN4111			R921	1-249-429-11	CARBON	10K	5%	1/4W
Q914	8-729-422-57	TRANSISTOR	UN4111			R922	1-249-429-11	CARBON	10K	5%	1/4W
						R923	1-249-429-11	CARBON	10K	5%	1/4W
Q915	8-729-422-57	TRANSISTOR	UN4111			R924	1-249-429-11	CARBON	10K	5%	1/4W
Q916	8-729-422-57	TRANSISTOR	UN4111			R927	1-249-406-11	CARBON	120	5%	1/4W
Q917	8-729-422-57	TRANSISTOR	UN4111								
		< RESISTOR >				R958	1-249-406-11	CARBON	120	5%	1/4W
								< VARIABLE RESISTOR >			
R200	1-259-500-11	CARBON	1M	5%	1/6W	RV200	1-223-933-21	RES, VAR, CARBON 250K/250K (BALANCE)			
R201	1-259-446-11	CARBON	5.6K	5%	1/6W	RV201	1-223-934-21	RES, VAR, CARBON 250K/250K (TREBLE)			
R202	1-259-446-11	CARBON	5.6K	5%	1/6W	RV202	1-223-935-21	RES, VAR, CARBON 900K/900K (BASS)			
R203	1-259-436-11	CARBON	2.2K	5%	1/6W						
R204	1-259-464-11	CARBON	33K	5%	1/6W			< SWITCH >			
						S200	1-571-828-11	SWITCH, PUSH (1 KEY)(SOURCE DIRECT)			
R205	1-259-446-11	CARBON	5.6K	5%	1/6W	S201	1-762-387-11	SWITCH, PUSH (LOUDNESS)			
R206	1-259-500-11	CARBON	1M	5%	1/6W	S202	1-571-112-21	SWITCH, PUSH (1 KEY)(SUBSONIC)			
R207	1-259-456-11	CARBON	15K	5%	1/6W	S203	1-762-656-12	SWITCH, ROTARY (TAPE MONITOR)			
R208	1-259-456-11	CARBON	15K	5%	1/6W	S901	1-692-974-11	SWITCH, ROTARY (INPUT SELECTOR)			
R209	1-259-500-11	CARBON	1M	5%	1/6W			< VIBRATOR >			
						X900	1-577-358-21	VIBRATOR, CERAMIC (4MHz)			
						*****					
R210	1-259-500-11	CARBON	1M	5%	1/6W						
R220	1-259-464-11	CARBON	33K	5%	1/6W						
R250	1-259-500-11	CARBON	1M	5%	1/6W						

PRO IND

SP SW

SP TM

Ref. No.	Part No.	Description	Remark			
*	1-660-561-11	PRO IND BOARD *****				
		< CONNECTOR >				
CN951	1-691-766-21	PLUG (MICRO CONNECTOR) 4P				
		< DIODE >				
D900	8-719-313-48	LED SEL6210S-TH12 (PROTECTION)				
		< IC >				
IC900	8-759-373-49	IC NJL54H400				
		< RESISTOR >				
R900	1-249-409-11	CARBON	220	5%	1/4W	
*****						
*	1-660-558-11	SP SW BOARD *****				
		< CONNECTOR >				
CN552	1-691-771-11	PLUG (MICRO CONNECTOR) 9P				
CN950	1-691-766-11	PLUG (MICRO CONNECTOR) 4P				
CN960	1-691-765-11	PLUG (MICRO CONNECTOR) 3P				
		< DIODE >				
D701	8-719-987-63	DIODE 1N4148M				
		< RESISTOR >				
R928	1-247-751-11	CARBON	820	5%	1/2W	
R929	1-247-751-11	CARBON	820	5%	1/2W	
R930	1-247-751-11	CARBON	820	5%	1/2W	
R931	1-247-751-11	CARBON	820	5%	1/2W	
R932	1-247-751-11	CARBON	820	5%	1/2W	
R933	1-247-751-11	CARBON	820	5%	1/2W	
R934	1-247-231-00	CARBON	430	5%	1/2W	
		(FE700R)				
R934	1-247-747-11	CARBON	470	5%	1/2W	
		(FE900R)				
R935	1-247-231-00	CARBON	430	5%	1/2W	
		(FE700R)				
R935	1-247-747-11	CARBON	470	5%	1/2W	
		(FE900R)				
R936	1-247-231-00	CARBON	430	5%	1/2W	
		(FE700R)				
R936	1-247-747-11	CARBON	470	5%	1/2W	
		(FE900R)				
R937	1-247-231-00	CARBON	430	5%	1/2W	
		(FE700R)				
R937	1-247-747-11	CARBON	470	5%	1/2W	
		(FE900R)				
R938	1-247-243-00	CARBON	1.3K	5%	1/2W	
R939	1-247-243-00	CARBON	1.3K	5%	1/2W	

Ref. No.	Part No.	Description	Remark			
		< RELAY >				
RY701	1-515-614-11	RELAY				
		< SWITCH >				
S900	1-762-654-11	SWITCH, ROTARY SLIDE (SPEAKERS)				
*****						
*	1-660-571-11	SP TM BOARD				
		*****				
	1-533-233-11	HOLDER, FUSE				
		< CAPACITOR >				
C501	1-164-159-11	CERAMIC	0.1uF		50V	
		< CONNECTOR >				
CN502	1-691-771-11	PLUG (MICRO CONNECTOR) 9P				
CN503	1-566-212-11	PIN, CONNECTOR 3P (EON CONTROL)				
CN802	1-564-321-00	PIN, CONNECTOR 2P				
CN804	1-580-230-11	PIN, CONNECTOR (PC BOARD) 2P				
* CN808	1-564-321-21	PIN, CONNECTOR 2P				
* CN809	1-565-792-11	PIN, CONNECTOR 2P				
		< DIODE >				
D501	8-719-987-63	DIODE 1N4148M				
D502	8-719-987-63	DIODE 1N4148M				
		< FUSE >				
△ F801	1-532-464-51	FUSE, TIME LUG(T2.5AL/250V)				
△ F802	1-532-464-51	FUSE, TIME LUG(T2.5AL/250V)				
		< COIL >				
L501	1-411-906-11	COIL, AIR-CORE				
L551	1-411-906-11	COIL, AIR-CORE				
		< RESISTOR >				
R501	1-249-162-11	CARBON	10	5%	1/3W	
R502	1-247-750-11	CARBON	680	5%	1/2W	
R551	1-249-162-11	CARBON	10	5%	1/3W	
R552	1-247-750-11	CARBON	680	5%	1/2W	
		< RELAY >				
RY501	1-515-921-11	RELAY (12V)				
RY502	1-515-921-11	RELAY (12V)				
		< TERMINAL >				
* TM501	1-537-519-11	TERMINAL BOARD (SP)(SPEAKERS)				
*****						

The components identified by mark △ or dotted line with mark △ are critical for safety.  
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
*	1-660-574-11	TRANS BOARD *****	
*****			
*	1-660-559-11	VOL BOARD *****	
		< CAPACITOR >	
C904	1-136-165-00	FILM 0.1uF 5% 50V	
		< CONNECTOR >	
CN201	1-691-770-11	PLUG (MICRO CONNECTOR) 8P	
CNJ900	1-568-317-11	SOCKET, CONNECTOR 6P	
CNJ901	1-568-319-11	SOCKET, CONNECTOR 8P	
		< VARIABLE RESISTOR >	
RV203	1-225-227-11	RES, VAR, CARBON 120K/120K (VOLUME)	
*****			
		MISCELLANEOUS *****	
54	1-533-233-11	HOLDER, FUSE	
△ 67	1-777-185-11	CORD, POWER	
△ CNJ1	1-526-794-11	OUTLET, AC (AC OUTLET)	
△ CNJ2	1-526-794-11	OUTLET, AC (AC OUTLET)	
△ CNJ3	1-526-794-11	OUTLET, AC (AC OUTLET)	
△ F801	1-532-464-51	FUSE, TIME LUG(T2.5AL/250V)	
△ F802	1-532-464-51	FUSE, TIME LUG(T2.5AL/250V)	
△ S1	1-554-920-11	SWITCH, PUSH (AC POWER) (1 KEY) (POWER)	
△ T1	1-429-490-11	TRANSFORMER, POWER (FE900R)	
△ T1	1-429-491-11	TRANSFORMER, POWER (FE700R)	
*****			
		ACCESSORIES & PACKING MATERIALS *****	
	1-473-656-11	REMOTE COMMANDER (RM-S316)	
	3-856-216-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, PORTUGUESE) (AEP)	
	3-856-216-21	MANUAL, INSTRUCTION (GERMAN, DUTCH, SWEDISH, ITALIAN) (AEP)	
	3-856-216-31	MANUAL, INSTRUCTION (GERMAN)(G)	
*	4-981-575-01	CUSHION	
	4-981-643-01	COVER, BATTERY (FOR RM-S316)	
*	4-982-292-01	INDIVIDUAL CARTON (FE900R)	
*	4-982-293-01	INDIVIDUAL CARTON (FE700R)	

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△ or dotted line with mark △ are criti-  
cal for safety.  
Replace only with part number speci-  
fied.

